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Unemployment,
Ethnic Minorities
and Discrimination

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STEPHEN DRINKWATER & PHILIP MURPHY

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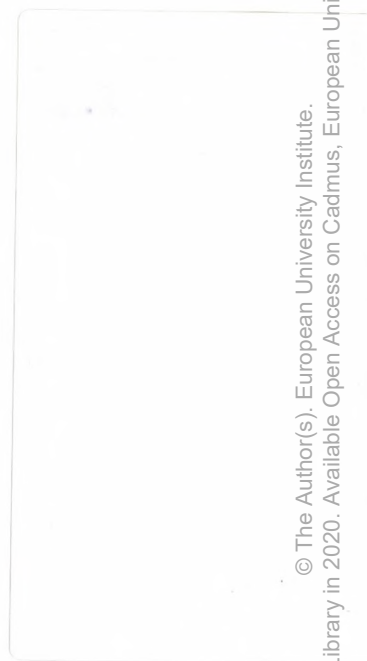


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Leslie/Blackaby/Drinkwater/Murphy: *Unemployment,
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EUROPEAN UNIVERSITY INSTITUTE, FLORENCE

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Abstract

Using a sample of around one million observations, formed by combining two micro datasets from the 1991 *Census of Population*, the paper explores male and female unemployment differences across Britain's ethnic minorities. The large sample size allows a detailed multivariate analysis of females for the first time. Unemployment differences are not simply the result of characteristic differences or discrimination by the white majority.

High rates of unemployment for migrant workers are typical of the EU, so the methods of the paper should be of general interest. Of particular interest is the comparison between UK born and foreign born ethnic minorities. Unemployment rates among the former tend to be considerably higher, but this is accounted for by characteristic differences. Thus there is no evidence that the UK born are doing worse, as the raw data suggests, but they do not seem to becoming better assimilated either.

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1 Introduction

Although the detailed empirical investigation of this paper is focused on Britain, the problem of ethnic minority unemployment is very much a European issue. Furthermore, 1997 has been declared by the EU to be the European year against racism, so to concentrate on the racial dimension of unemployment seems appropriate. The theme is one worrying consequence of Eurosclerosis — the generally high levels of unemployment that have existed following the oil crises of the 1970s. With double digit unemployment rates a feature in several countries, marginal groups, in particular immigrants and ethnic minorities, tend to suffer disproportionately. Table (1) gives some information about this. It can be seen that those on the margins suffer much higher rates of unemployment than the native born majority. Of particular note are some astonishingly high rates of unemployment among the younger age categories. Notice that the unemployment differential between minority groups and the majority are lowest in the United States and these smaller differences are also typical for Black Americans (Stratton, 1993).¹

Table (2) gives the British picture over a number of years and neatly illustrates the disproportionate effect Eurosclerosis has had on ethnic minority unemployment rates. In 1979, the male unemployment differential was less than 2 percent, yet by 1994 the differential had risen to over 14 percent. Female unemployment rates also show the same disproportionate differential increase. Table (3) gives some information about earnings disadvantage. The ethnic wage gap is around 10 percent for males, but there is little ethnic difference for females. Notice that UK born non-white males seem to do even worse, but, in actual fact, characteristics (such as a younger age profile) account for the majority of this. When compared with similar whites much of the ethnic wage gap seems to disappear.² For this reason, we regard unemployment, not earnings disadvantage, as the most serious issue. The theoretical literature on

¹ Cynics might argue that part of the reason is that huge numbers of Blacks are now in gaol. See Bound and Freeman (1992).

² The issue of earnings discrimination is extensively investigated in Blackaby *et al.* (1997), and Leslie *et al.* (1996). Dex (1992) surveys some evidence for some European countries, showing that migrants tend to be crowded into the worst jobs, with limited promotion opportunities. Earnings, even after controlling for characteristic effects, tend to be lower.

discrimination, which more often than not operates through competition models, has tended to give little emphasis to the unemployment issue.³

What has been the European response to Eurosclerosis? Basically, what has been observed has been a convergence in national immigration policies, with 'Keep Out' signs now posted throughout Europe. The early post-war years of labour shortage were the heyday of the open door approach. This was followed by restrictions on legal immigration (but in reality, legislation did not stop the inflow of large numbers of immigrants). With restrictions on legitimate immigration becoming increasingly severe, potential migrants have sought other means to enter, such as claiming refugee or asylum status. Pressure of numbers through the asylum route has led to a progressive tightening of this means of entry. It seems inevitable that illegal immigration will become a major issue in future years, as this becomes the only way for the many who seek a more affluent lifestyle. Fortress Europe is likely to be a very leaky sieve, and a larger proportion of illegal immigrants is likely to exacerbate the already marginalised status of immigrant groups.

Table (2) suggests that a reversal of Eurosclerosis could do much to eliminate the large differences in unemployment rates because non-whites appear to do relatively well in periods of upturn. Economic policy of the EU seems to stress a low inflation goal, rather than achieving the low unemployment rates of the early post-war years. Monetary union with an independent Central Bank may be an effective anti-inflation weapon, but would not strike the average unemployed non-white youth in Central Manchester as being of much relevance to their own predicament. Once the major issues of monetary union and a common immigration policy (with the usual British opt out on both) have been settled, the presence of a large number of marginalised groups and few legal rights for illegal workers will become a dominant EU issue.

2 The economic benefits of immigration

One question that is sometimes posed is whether immigration offers any benefits to the indigenous population. If so, then the monetary value of the immigration surplus can offset the cost of social tensions and the fiscal cost of the larger use that immigrants might make of welfare services. Depending on the assumptions

³ Becker (1971) in the second edition of his famous monograph, has stepped back from his earlier speculation that characteristic differences, such as being concentrated in occupations with higher unemployment rates, explain racial unemployment differentials.

made, models can come up with a variety of predictions about the impact of immigration (Borjas, 1995, Friedberg and Hunt, 1995).

Whatever the preferred model, any possible negative impact is bound to be small on the indigenous population. Imagine the worst possible negative case where immigrants are non-productive and they are given welfare benefits equal to the average wage of the indigenous population. Given the small numbers of immigrants typically found in European countries, the maximum average *negative* impact is small, despite the fact that racists would claim otherwise. It teaches us to think of immigration and the presence of ethnic minorities as an issue, not a problem.

But it is not true that immigrants simply join the unemployed, in which case benefits to the indigenous population are also possible. This is just a variation of the theme that free trade is a good thing for all. However, as before, given the small numbers involved, possible benefits to the indigenous population should not be exaggerated. Borjas (1993), reviewing some US studies, confirms this point. Stripped to its essence, the mutual benefit idea is based on some elementary properties of concave functions. Suppose that average income for the indigenous population in the receiving country is given by the concave function

$$\bar{y} = w(\bar{k}) + r(\bar{k})\bar{k}, \quad (1)$$

where \bar{y} is average income, \bar{k} is capital per head (this could be thought of as human capital as well as physical capital). Income for any particular individual with capital endowment k_i is given by the linear function

$$y_i = w(\bar{k}) + r(\bar{k})k_i. \quad (2)$$

Equation (1) embodies the idea that the return to capital $r(\bar{k})$ declines as the economy becomes capital rich and the return to unskilled labour $w(\bar{k})$ will increase. The concavity of eq.(1) is a natural property for an economy with marginal product pricing and a well-behaved concave production function. Given concavity, immigration is beneficial as long as immigrants have an average capital endowment different from \bar{k} . Immigration will alter the average capital endowment and hence w and r . The change in average incomes of the *indigenous* population will be

$$\Delta \bar{y} = \Delta w + \Delta r \bar{k} > 0. \quad (3)$$

Because of the concavity of eq.(1), this is always positive. However in view of the smallness of any potential *overall* benefit, commentators have tended to focus on the impact of immigration on the distribution of income. Immigration of unskilled labour, since it raises r and lowers w , will be of most benefit to skilled labour. By contrast, immigration of skilled labour, since it raises w and lowers r , is of most benefit to unskilled labour. The critical capital endowment for a particular individual is where there is no net benefit to that individual. The critical value k_c is where

$$\Delta y_c = 0 = \Delta w + \Delta r k_c \quad (4)$$

Those with an endowment below k_c would lose out if immigration of unskilled labour drove changes in relative prices and those above k_c would lose out if immigration consisted of skilled labour. Immigration policy is now weighted in favour of skilled labour, which ought, if anything, to reduce income inequality.

Once again, the magnitudes involved are likely to be small. Imagine the case where the immigrant population is 5 percent, all with a zero capital endowment. Suppose that eq.(1) is derived from the Cobb-Douglas function $\bar{y} = k^\alpha$. The largest wage reduction will occur for those with no capital endowment, which is easily seen to be $1 - 1.05^\alpha$. A reasonable guess for α would be around .2 and would give a *maximum* reduction in the wage of less than 1 percent. The overall gain to the indigenous population is less than .02 percent.

So the idea that immigration poses a major threat to the low paid is greatly exaggerated. In fact, it is the globalisation of world trade which probably poses the larger threat. Wood (1994) has emphasised this aspect and argues that it is in part responsible for Eurosclerosis. The immigration model is just an application of the Heckscher-Ohlin trade theorem, where the import is now labour rather than goods embodying labour. As previously mentioned, one criticism that can be made of these models is that they concentrate on the impact on earnings and overlook the difficulty that minorities sometimes have in finding employment. The full employment competitive paradigm may not be the best way to handle the issue.

Immigration may bring intangible benefits that the somewhat terse formal models ignore. Ethnic communities provide a whole new set of commodity choices for the indigenous population, not previously available — eating in ethnic

restaurants is one good example. Borjas (1995), in the spirit of the new international trade theory, speaks of,

"Immigration expands the size of the market. It can introduce many new interactions among workers and firms, so that both workers and firms 'pick up' knowledge without paying for it. As a result, even though the production technology at the firm level has constant returns to scale, the external effects resulting from immigration might lead to increasing returns on the aggregate."

Once again these 'free lunch' magnitudes are difficult to quantify, but they are no doubt there. One cannot help feeling that the benefits of immigration to economies such as the United States, Canada and Australia have been larger than those suggested by formal models that ignore externalities.

Zimmermann (1995) tackles the issue in a less formal way. Population growth among the receiving countries tends to be very low, and all these countries will face the problem of an ageing population. The traditional emigrant countries have, by contrast, high population growth and a very youthful population. Immigration can redress the problem of age imbalance and contribute towards a dynamic workforce with a sufficient fiscal base to support a large number of elderly and unproductive citizens. In 1995, migration accounted for 75 percent of the EU population growth and this does not take into account the greater fertility among immigrant and ethnic minority populations which stem the tendency towards an ageing population.⁴

3 Britain's ethnic minorities

Non-white immigration into Britain has a long tradition, much of it associated with its maritime history. It is estimated that there were around 20,000 black domestic servants in London in the mid 1700s and the dock areas of Britain, such as Cardiff and Liverpool have had significant black populations since the early nineteenth century. The second world war also saw the arrival of large numbers of black servicemen from the Colonies.⁵

Nevertheless, apart from the special case of the Irish, the majority of Britain's ethnic minority population is of recent origin. The start of the modern influx is associated with the arrival of the *Empire Windrush* in 1948, which brought

⁴ Eurostat (1996b).

⁵ Field and Hankin (1971).

around 500 Black-Caribbeans and generated considerable publicity at the time. In 1948, there were few restrictions on immigration from the Colonies and the Commonwealth, and labour shortages meant a steady inflow. Industries such as transport and textiles actively recruited from abroad. Initially, the numbers arriving were very small, mainly Black-Caribbean. There were also arrivals from the Indian subcontinent, for example around 1000 Indian doctors arrived in the late 1940s.

It is actually difficult to obtain an accurate figure on numbers because the Home Office would collect information on only those subject to immigration control — and legislation to limit numbers occurred much later. Even then, many were excluded from a formal count. Little or no information is available on those who chose to return home after a period of time working in Britain. It should also be remembered that there was considerable white immigration — indeed many of those classified as coming from New Commonwealth countries were in fact white expatriates.⁶

Immigration from the Caribbean peaked in the 1960s, whereas the bulk of arrivals from India and Pakistan occurred at a later date. East African Asians, who held British passports and were not then subject to restrictions, arrived in significant numbers in the late 1960s. The expulsion around 1972-73 of the Ugandan Asian population meant another large inflow of Asians. The 1980s saw the arrival of large numbers of Hong Kong Chinese and Bangladeshis. With the current severe restrictions on further immigration, ethnic population growth initially came from the admission of dependants of those with a right of domicile and latterly from children born in Britain. A feature of post-war immigration has been a movement away from the traditional areas of London and the ports, to the extent that most cities now have significant ethnic minority populations.

Immigration into Britain has tended to be very localised. For example, one individual from a particular village in India would be the pathfinder. His experience would then encourage others to follow from his place of origin and the new arrivals would choose to live close by, often on the same street. Populations inevitably become very clustered and close-knit. Although one of the lessons of this study is the diversity of experience, it should be remembered that there is considerable difference and separate traditions *within* particular

⁶ Holmes (1991) claims that white immigration has exceeded non-white immigration since the war.

groups. For example, Indian Muslims, Hindus, Sikhs and Gujaratis are fairly diverse, yet we do not have sufficient data to consider them singly.

Table (4), derived from the *Labour Force Survey*, gives some information about year of arrival. It confirms the brief historical account just given. Notice the high numbers of British born among the Black-Other category, reflecting the ambiguity of ethnic origin among the second and subsequent generations. The late arrival of the Pakistani/Bangladeshi group is also noteworthy. This is the most disadvantaged group, particularly the small numbers of Bangladeshis, who have had the least amount of time to assimilate. They also arrived at a time of least economic opportunity, when jobs were relatively scarce.

4 What is meant by ethnicity in the British data?

This is a controversial question and one on which there are no clear-cut answers. The advantage of focusing on ethnicity, rather than immigrant status or nationality, is that the labour market performance of British born descendants can be explored. Secondly, foreign nationals will consist of both whites and non-whites, who are likely to be discriminated against, if at all, in different ways. A question about an individual's ethnic background will be able to delineate these categories.

In survey data, there are two ways to elicit information about a respondent's ethnic background. The first method is where colour is decided upon by the opinion of the interviewer, without consultation with the person being interviewed. This was the method adopted in the *General Household Survey* up to 1993/94. The interviewer is asked to 'code from observation' if the household member is coloured, white or if unable to form an opinion. The category of non-white is derived from answers to this question. Given that discrimination is based on the perception of the majority — mistaken or otherwise — there is perhaps some slight advantage in this approach.

The second method is to ask the respondent a specific question and this has been the approach of the 1991 *Census*, which is the main data source of this paper. It was only after considerable debate that a question on ethnic background was asked for the first time in the decennial *Census*. Unlike information on country of birth, which is also asked in the *Census*, ethnicity is very much a question of personal preference and it is not surprising that a certain amount of ambiguity is likely to be the order of the day. It is also a somewhat politically charged topic because to be invited to specify an ethnic background from a foreign land was felt for some to impugn their inherent Britishness. There is also the view

that this question was designed to enumerate information about the numbers of non-white British citizens and that such information might be used in negative way against those who answered the question. This was particularly true for the Afro-Caribbean community, among the oldest of the ethnic groups, with nearly 60 percent (of all ages) born in the United Kingdom as of the *Census* date.

The *Census* itself offered no guidance as to how an individual might respond to the ethnicity question, apart from the advice that, "If the person is descended from more than one ethnic or racial group, please tick the group to which the person considers he/she belongs, or tick the 'Any other ethnic group' box and describe the person's ancestry in the space provided". Ballard and Kalra (1994) have commented on the *Census* ethnicity question that, "Ethnicity is best regarded as being primarily a matter of community affiliation, and as such it has no *necessary* connection either with one's birthplace or one's genetic heritage."⁷ There is no doubt some truth in this, but one suspects that most would have read the advice section in the *Census* form and some may have concluded otherwise. All things considered, ethnicity is thorny and difficult issue, on which definite answers are just about impossible.

Given that the first option offered was 'White', there can be little doubt that this question was primarily concerned with skin colour. In addition to the 'White' category, eight other categories were offered; 'Black-Caribbean', 'Black-African', 'Black-Other' were the next three possible choices. Respondents were asked to give further details for this latter question. This gave a natural split in the *Census* form, strongly suggesting that Black-Other refers to those of African descent. In fact, the Black-Other category consists of mainly British born but does contain a very small number of Asian born. The next group is 'Indian' followed by 'Pakistani', then 'Bangladeshi'. Interestingly, even though Bangladesh only became a legal entity in 1971 and Pakistan in 1947, respondents had no difficulty in using these as ethnic identifiers. The final categories were 'Chinese' and a final catch-all group for which further details were asked, 'Any other ethnic group'.

Despite the pitfalls, it appears in practice that most had little difficulty in responding to the ethnic group question — even though ostensibly similar people might respond in a different way. Part of this arises from the fact that the

⁷ Solomos (1993) and Rex (1991) provide extensive discussions of this issue. Hostility to ethnic groups sometimes arises because they are seen as a threat to the state, in the sense that ethnic identity might dominate any sense of national identity. A famous example, which aroused considerable hostility, was Lord Tebbit's cricket test, whereby he questioned the loyalty of British citizens who supported the non-British team.

majority of non-white adult respondents would be born abroad and the ethnicity and country of birth questions more or less coalesce. These adults, with some notable exceptions, were also happy to give their children the same ethnic identifier. Many Afro-Caribbeans, however, identified their children as Black-Other.⁸ The fact that many British born are able to identify themselves with specific ethnic categories does speak volumes about the state of assimilation in British society. Appendix (1) gives some more detailed information about the ethnic categories and how they are built up from the individual *Census* responses.

Ambiguity is more likely to be a problem in any future *Census*, because British born non-whites need not feel any cultural affiliation with any pre-specified ethnic group despite their ancestry. The Irish are a good example of this natural type of assimilation. The *Census* identified a large number of Irish born immigrants, but did not attempt to identify British born Irish as a separate ethnic group. Second generation Irish — with possibly one British parent — would more than likely identify themselves as British, with little more than lip service paid to their Irish roots. However, it is likely that the 2001 *Census* will include Irish as a separate ethnic category. In the subsequent analysis, we will include the Irish born as an additional ethnic category. It provides a useful comparison *white* group, which possibly has problems of assimilation, against which to compare non-white ethnic groups.

The controversial nature of the ethnic background question has been recently highlighted by the proposed ethnicity question for the 2001 *Census*, which is now being piloted. With the progress of time, the majority of non-whites will be British born and with one in three black men now living with or married to a white women, the question of classifying ethnic identity becomes ever more difficult and sensitive.⁹ Two new categories of 'Black-British' and 'Mixed-Race' have been proposed and have met with hostility from politicians and from the *Commission of Racial Equality*. Such criticism does seem misplaced, given the recognition that British non-whites face discrimination. If they can not be identified, their economic circumstances can not be properly investigated.

⁸ Ballard and Kalra (1994), Table (2) provide an interesting cross-tabulation of ethnic group and country of birth.

⁹ See *The Guardian* newspaper 9 December 1996.

5 British immigration legislation

The watchword here is fear, whether real or imaginary. Wartime was the classic time for xenophobic outbursts against people not considered to be British. For example, between 1914 and 1919 over 28,000 aliens were deported and in the second world war around 22,000 people of German origin and 4,300 Italians were interned. In recent times, fear of potential fifth columnists has been replaced by a fear of numbers. Writers on this subject often hark back to some far off halcyon day of liberalism when individuals could travel freely and reside more or less where they liked. It is, however, very easy to have a liberal policy as long as the numbers taking advantage of opportunities are small. Britain is not unique, because most of the traditional receiving countries (apart from Norway) have modified their rules on immigration in response to increased numbers seeking admission.¹⁰ Immigration policies in receiving countries have tended to converge. The joke is sometimes made that the difference between democracies and totalitarian regimes is the latter will not let people out and the former will not let people in.

Nowadays travel is inexpensive and within the means of even the poorest. The growth of television and communications mean that most have a knowledge and a perspective of a world beyond their small homeland. More and more seek the economic opportunities that life in more affluent Western countries promise. Furthermore, language is less of a barrier to travel. With large migrant populations already present, the need to assimilate is lessened. For example, Lazear (1995) has drawn attention to the fact that many migrants to the USA no longer need to learn English. There is a whole ethnic infrastructure of schools, newspapers, radio, television, and so forth to cater for needs. It is not just a local issue as more countries in the West have become recipients of immigrant populations. Most now have significant ethnic minority populations which have arrived after 1945. As in Britain, many of these groups have not integrated.

In short, it has never been easier for potential migrants to travel and seek a new life. Castles and Miller (1993) estimate that around 1.7 percent of the world's population live in a country other than their own, including 20 million refugee and asylum seekers. This excludes the descendants of these immigrants who might be full citizens of the host country but would identify themselves as members of their parent's ethnic group. They also estimate that around one quarter of the world's migrants are illegal, although to our knowledge no-one has attempted to calculate the size of Britain's illegal ethnic minority population.

¹⁰ These are usefully summarised in OECD (1995), pp. 42-45.

This is a group that would choose to remain very inconspicuous for obvious reasons. It is a reasonable guess, however, that illegal immigrants would be even more economically disadvantaged compared with recognized ethnic minorities. The *International Labour Organisation* has estimated that there are 2.6 million illegal immigrants in Europe as a whole, but admit this figure is only a rough guess. As the mechanisms for legitimate immigration become more and more restricted, illegal migrant populations will become the most pressing issue. They are likely to be even more marginalised and vulnerable to exploitation. It will not be practical or possible forcefully to remove millions of people.

International migration has accelerated from the 1980s. People on the move is one of the major issues of the 1990s. It is perhaps inevitable that most of the richer industrialised countries have adopted increasingly severe restrictions against economic migrants and have also sought to limit the numbers of asylum seekers, that is those claiming to flee political repression. In fact, it is asylum seekers who are now the main source of the growth of immigrant populations as other means are precluded. In Western Europe there were just 64,000 arrivals in 1983 seeking asylum, which grew to 417,000 in 1990. Bohning (1991) has estimated that of the 1.6 million asylum seekers who arrived between 1983-1990, only 320,000 returned home. Many unsuccessful applicants stay on either legally or illegally, or else try their luck in another country. As the rules tighten — and in Germany the success rate for asylum seekers dropped to just 4 percent in 1993 — the issue of illegal immigration will be exacerbated. Around half the asylum seekers have been from Europe, mainly from Romania and the former Yugoslavia, and the rest have been non-whites from Asia, Africa and Latin America.

Whilst most would accept the fact that unrestricted access to settle and work in another country is no longer a realistic possibility, the criticism of Britain has been that its legislation has been covertly racial in tone. The charge is that it is much more difficult for a non-white to settle in Britain compared with someone whose skin is white. Furthermore, the charge of racism is compounded by the fact that legislation has traditionally given considerable discretion and leeway to officials to make their own judgements about individuals — for example, Entry Clearance Officers in British Embassies have the power to turn down applicants (even for relatively innocuous applications such as a visitor's visa) without any right of appeal. There is a belief, mistaken or otherwise, that officials favour whites. In 1985, the *Commission for Racial Equality* estimated that non-whites were 30 times more likely to be denied entry than whites.

It is also true that those with substantial financial resources are easily able to stay in Britain. However, discrimination against those with limited financial

resources is nothing new. For example, the 1905 Aliens Act gave the power to exclude so-termed 'undesirables', but only those travelling on the cheapest steerage passage were affected. The principle that money is associated with desirability is long established.

The concept of what is meant to be a British subject has always been complex and confusing even to legal experts who have spent a lifetime studying the subject.¹¹ Immigration law covers a multiplicity of issues and we can only cover the barest details here. The concept of citizenship was not really defined until the landmark 1962 Commonwealth Immigration Act. Citizenship in Britain has traditionally been based on the concept of *ius soli* — the idea that birth in the country, not parentage, conferred the right of citizenship. Others have determined citizenship on the principle of parentage or *ius sanguinis*. Britain is a country, rather than a *Volk*. Post-war legislation has seen the gradual erosion of the *ius soli* principle down to the rather mean-spirited proposal in 1981 that the children, born in Britain, of illegal immigrants would be denied citizenship. Most countries now operate on a mixture of the two principles to a lesser or greater extent. Countries which traditionally have had a history of net emigration have operated mainly on a *ius sanguinis* principle, whereas countries which have been net receivers have operated mainly on a *ius soli* principle, but there are exceptions. Where this occurs, the principle of *ius sanguinis* generally works against immigrants because their children are denied citizenship of the country in which they were born and spent all their lives — Switzerland is an example of that harsh principle. In addition, most countries have a separate set of rules concerning naturalisation, whereby a foreign resident can apply for citizenship. In Britain, the normal requirement is five years of legal residence.

The first major piece of post-war legislation was the 1948 British Nationality Act. It created the concept of the 'Commonwealth Citizen' or British subject, based around the old Empire, with an unrestricted right of access to settle and work. At the time there were concerns about labour shortages and population decline. Immigration was to be encouraged, not restricted. In fact, the actual number of New Commonwealth arrivals was small, but these were concentrated in small inner city areas. They met with hostility and prejudice from local people. As early as 1948 there were outbreaks of violence in Liverpool, but the watershed event was the 1958 Notting Hill riots. From then on the issue of Commonwealth immigration was on the political agenda. The secret history of that period and the debates as to how to restrict non-white immigration, without appearing to be overtly racial, is now just beginning to be told.

¹¹ See Dummett and Nicol (1990).

The 1962 Commonwealth Immigration Act controlled immigration from the Commonwealth for the first time — although secretly whites were allowed in through official discretion. It established a three class voucher system for intending immigrants, which were restricted in number. The reality of the 1962 Act was that it did not restrict immigration, the number of arrivals actually increased after the Act. In the 1964 General Election, one Conservative candidate overturned a large Labour majority, against the national trend, in the Smethwick constituency of Birmingham, by fighting on a shamelessly racist ticket.

The lesson of Smethwick was not lost on the new Labour government, despite the unprecedented denouncement of the newly elected MP for Smethwick by the Prime Minister Harold Wilson. The twin approach of legislation to enhance the rights of those living in Britain and legislation to restrict new arrivals was established. However, existing residents rightly felt that immigration legislation stigmatized them as a problem and exacerbated racial tension rather than defusing it. The 1965 Immigration Act restricted the number of vouchers to 8,500 for skilled workers only. Both Labour and Conservative governments have, therefore, taken a tough line on the issue of immigration.

The period since then has been marked by further restrictions and closing of loopholes. The 1968 Commonwealth Immigrants Act dealt specifically with East African Asians, who, as British passport holders had been exempt from previous legislation. Only 1,500 vouchers were issued for this class of person. Ironically, it was felt that this actually encouraged immigration as many sought to enter the country before restrictions were imposed. The 1968 Act was important because it introduced the principle that only those who could demonstrate a close ancestral tie with Britain were to be admitted. This, *de facto*, introduced a racial element into immigration law because whites were necessarily better able to demonstrate such a tie. The 1971 Immigration Act consolidated the earlier legislation and formalised the idea of patriality — to establish the right of abode it was necessary that at least one grandparent or parent was born in Britain. Clearly, such a principle discriminated against non-whites. Fryer (1984) called it "another piece of nakedly discriminatory legislation". It also gave new powers to immigration officers and the police to exclude those they thought undesirable.

The 1981 British Nationality Act was specifically designed to deal with the problem of Hong Kong. It created the status of British citizen, with a right of abode and other categories of British Nationality, with no associated right of abode. In effect, citizens of British Dependent Territories were to be denied the right of abode. Again the Act was blatantly discriminatory because two dependencies with white populations, Gibraltar and The Falklands, were

explicitly made exceptions. The 1988 Immigration Act imposed further restrictions and gave officials further powers of exclusion and deportation. Immigrants would now have to demonstrate that they could maintain themselves and their families without recourse to public funds. It made it the case that no British citizen had the automatic right to be joined by a spouse of either sex. In response to the growth of asylum seekers, the 1993 Asylum and Immigration Appeals Act curtailed the rights of asylum seekers, particularly the right of appeal for visitors and students. This has thought to have lead to a recent decline in the number of asylum applications, which in peaked at 73,400 in 1991, up from 6,200 in 1985. Other European countries have also tightened their own rules with a corresponding decline in the number of applications.¹²

6 The European context

British immigration legislation was a reaction to increasing numbers of non-whites seeking a new life in the more affluent West. Britain should not be viewed in isolation: other European countries have had a significant inflow of non-whites and whites.¹³ For some, for example Algerians in France, Zaireans in Belgium, Suranese in Holland, Angolans in Portugal, and Ethiopians in Italy, this has been the result of a colonial legacy. West Germany, because of a collective guilt about its treatment of Jews and other minorities in the second World War, has had, until recently, particularly liberal policies concerning those seeking political asylum and has attracted considerable numbers as a result. For example, in 1992 there were 438,000 asylum seekers in Germany alone, though the majority of these were white.

Post-war Europe has seen two types of immigration. The first type has been poor whites from other parts of Europe — the so-called guestworker system, whereby the workers were seen as a temporary response to labour shortages and were expected to eventually return home. Official attitudes reflected this view of the guestworker with these individuals given few rights. For example, they were not permitted to bring their families and could be made to leave once the job was no longer available. Switzerland, with around 20 percent foreign resident workers, the largest of any European country, has often been accused

¹² Eurostat (1996a).

¹³ We focus on Europe, but the phenomenon appears universal. Australia abandoned its racist, whites only policy in 1973, and amendments to United States rules in 1965 has meant the arrival of new populations from non-traditional sources. Castles and Miller (1993) emphasise that these great diasporas have become a global phenomenon.

of exporting its unemployment when recession strikes. Now three quarters of its foreign workers have the right of permanent residence, so this is no longer true.

Britain too has always had significant white immigration. After the war, a large number of Poles and Italians were admitted and there has always been a steady influx from the Old Commonwealth countries. However, the main source of white immigration has been Ireland. Many of these whites were easily assimilated, although the Irish are, as will be seen are something of an exception. Unlike the guestworker system, the majority of British immigrants enjoyed full rights as citizens, and in particular the right of family reunion.

The second source has been non-whites from outside of Europe and as the guestworker system went into decline in the early 1970s, so the proportion of non-whites among the immigrant population of Europe has increased. In Britain, it has been family reunion of dependants that has been responsible for the more recent inflows of non-European immigrants, with asylum seekers another source in the rest of Europe.

It is also evident that racism is prevalent within the EU, and that the headline grabbing incidents of murderous racist attacks are just an extreme manifestation of a more generalised hostility. Marie (1995), acting as the EU official summariser on immigration issues, wrote that, "Intolerance is mounting in all countries and all sections of the community". The EC passed a joint declaration against racism and intolerance in 1986; the fact that it was thought necessary speaks volumes for the state of European race relations. One result of this declaration was to commission a survey of the 12 member states concerning individual attitudes carried out in 1988.¹⁴ Around 5 percent considered immigration to be the major issue, compared with 49 percent who considered unemployment to be the most pressing. Opinion on racism was very polarised, with 10 percent approving of racist parties to some extent, whereas 82 percent disapproved. However, over half considered that some groups of 'others' in their own country were too large. However, at governmental level most European countries make racism a criminal offence, so, like Britain, the policy seems to be to limit numbers, whilst at the same time attempting to promote the economic integration of minority groups.¹⁵

¹⁴ Commission (1989).

¹⁵ A survey of the legislative framework across the major European and other OECD economies is given in a special April 1994 issue of the ethnic relations journal, *New Community*.

Despite the convergence of national policies, Britain, as with much EU policy, is suspicious of a common European approach to immigration. The government wishes to retain the right to screen all entrants to the UK. Thus the proposal that all internal frontiers in the EU be abolished by 2001, with a 'fortress Europe' for outside borders, is strongly opposed. Britain sees border controls as a matter for national, not European, policy.

7 Facts about Britain's ethnic minorities

Tables (5) and (6) present a summary of some key statistics by ethnic group for males and females for the working age population for 1991 (16-64 for males and 15-59 for females). It also shows the sample sizes. The data are derived from the *Sample of Anonymised Records (SARs)* from the 1991 *Census*. The *SARs* consist of a 2 percent sample of individuals and a 1 percent sample of households from the full *Census* and these are combined here to give the largest possible sample. No individual can appear in both the individual and household *SARs*. Almost 95 percent of the male and female samples are accounted for by whites, with the percentage of non-white females slightly higher than the corresponding male figure. Indians are easily the largest non-white group. The proportion of non-whites in the working population has grown considerably and will continue to do so. In 1979 the figure was 3.9 percent and this rose to 5.9 percent in 1994. The reason for the growth is the younger age structure of the ethnic minorities and their tendency to have more children. There would be very little contribution from net immigration, because of the severe restrictions put in place. Working age ethnic minorities are somewhat younger on average than whites, but the difference is not particularly large.

Over 75 percent of the total male sample are in employment, but this hides a large degree of variation among ethnic groups. Black-Africans are the only group to have less than half of their male population in work. Pakistanis/Bangladeshis do not fair much better since they just squeeze over the 50 percent mark. The remainder of the groups have over 60 percent in employment but they all lag behind whites, who have 76.8 percent of males in employment. For females, Black-Caribbeans possess a higher proportion in employment than whites. However, this does not prevent over half of the total population of minorities being classified as out of employment. Only 17.3 percent of Pakistani/Bangladeshi females are involved in various forms of employment, which reflects the special isolation of this group. Given the under-representation of ethnic groups in employment, the next question is how this shortfall is distributed amongst the out-of-work activities.

The two biggest factors explaining employment differences among males are variations in unemployment rates and variations in the proportion of students. Both tend to be high for the minority groups, but note that the generally younger age structure of the ethnic minorities accounts for some of these variations, particularly the student population. These two factors are important for females as well, but much larger variations in activity rates are also apparent. Possible reasons for the higher student percentages include the fact that ethnic groups defer entry into the labour market because of a fear of discrimination and the presence of a high number of foreign students who will return to their country of origin, but who, in principle, should be counted on the *Census* day. The highest student percentage of all belongs to the Chinese with Black-Africans trailing closely behind. For males, the percentage of students from ethnic minorities is more than twice that of white students but this discrepancy is not so great for females. Leslie and Drinkwater (1996) have shown that ethnic minorities have a taste for education over and above the discouraged worker effect coming from higher unemployment rates.

The information about unemployment comes from the question 'Whether working, retired, looking after the home etc last week'. Unemployment is the aggregate of the positive responses to 'Was waiting to start a job he/she had already accepted' and 'Was unemployed and looking for a job'. This latter question is somewhat vague because, unlike the International Labour Organisation definition, which is used in the quarterly *LFS*, there is no specific edict concerning how long ago a job was sought. Consequently, it might be expected that this somewhat looser definition might elicit a somewhat higher response rate. Green (1995) confirms this. In April 1991, the Employment Department claimant count was 2,099,400, the *LFS* count 2,302,300 and the *Census* count 2,484,500. It is generally agreed that the *Census* is an accurate indicator of true unemployment levels.

A lower percentage of Chinese males and females are unemployed (here measured unconventionally as a percentage of the total working population) compared with their white counterparts. However, this is not the case if unemployment rates, conventionally measured as a percentage of the economically active population and shown in parentheses in the two tables, are considered. This difference is due to the high proportion of students alluded to previously. Otherwise, whites possess the lowest unemployment rates for both males and females. For males, the three Black groups and Pakistanis/Bangladeshis have over 20 percent of their populations classed as unemployed. The conventionally measured unemployment rate for non-whites is 21.2 as opposed to 11.0 for whites. Female unemployment rates are lower but Black-Africans and Black-Others suffer to a disproportionate degree. Even

though only 7.9 percent of Pakistani/Bangladeshi females are unemployed this still translates to a conventional unemployment rate of 31.4 because of the extremely high inactivity rate of this group.

The final column in each of the tables refers to the percentage who are inactive, namely those permanently sick, retired or otherwise inactive. Over 11 percent of Pakistani/Bangladeshi males fall into this category. However, five of the other ethnic groups have lower male inactivity rates compared with whites. For females, this only applies to three of the groups. 63.4 percent of Pakistani/Bangladeshi females are inactive. The principal explanation for this finding is cultural; Muslim women are expected to remain at home after leaving school and prepare for marriage.¹⁶ Coupled with higher than average unemployment and student percentages this leads to less than one in every five Pakistani/Bangladeshi females being in employment. This actually represents an increase compared with previous years, so the traditional barriers are breaking down, albeit slowly. There is clear evidence that this group is somehow special, which the later formal analysis will confirm.

Males and females can be compared by calculating a number of correlation coefficients across the two tables. The correlation coefficient between the percentage of males in employment and the percentage of females in employment is 0.686, which is significant at the 5 percent level. Similar coefficients are obtained for other pairwise correlations; male and female unemployment rates is 0.898 and the percentage of male and female students is 0.930. A smaller and insignificant coefficient is obtained by correlating the percentage of inactive males and inactive females, which is 0.577. These results suggest that there are equally strong ethnicity effects affecting economic position as well as gender differences.

8 Differences between immigrants and British born ethnic minorities

The lower portions of Tables (5) and (6) introduce country of birth into the analysis. Whites are split into those born in the UK, those born abroad (excluding Ireland) and the Irish. Non-whites are also divided into UK born and foreign born. UK born whites appear to do the best in terms of economic position and UK born non-whites the worst. The percentage of UK born non-whites who are unemployed or students is particularly high. Why foreign born non-whites should fare better than UK born is a matter of debate and a cause for

¹⁶ See Burgin and Edson (1967).

concern. The crude evidence of Tables (5) and (6) lends support to the Borjas (1986) pessimistic view of non-assimilation. There is not much *prima facie* evidence that second generation British born ethnic minorities are becoming better assimilated, at least in terms of employment. How this group will fare is an important question, because they will increasingly come to dominate the ethnic labour force. As of 1991, the numbers of British born among the ethnic minorities active in the labour market were comparatively small and concentrated in the younger age categories. Section 16 explores the issue in more depth.

9 How accurate are the *Census* data?

Unlike the *LFS*, the *Census* is not a small sample of the population, rather the aim is to record the whole population. However, 100 percent coverage is never possible and non-response turned out to be particularly severe in the 1991 *Census*. The Poll Tax, and the strong motivation not to be conspicuous, were possible reasons for the large undercount. There are two types of missing data contained in *Census* records. First, is the case of incomplete census forms. Rather than simply have missing data, the solution has been to impute missing values based on what a household with those particular characteristics might be. For example, marital status would be imputed on the basis of age and so on. In 1.6 percent of cases whole households were imputed, where the enumerator failed to locate the residents. Although better than simply ignoring these households, such a procedure is unlikely to be very accurate.

The second, more serious, error consists of those missed altogether.¹⁷ Furthermore, it is estimated that the *Census Validation Survey*, designed to locate the missing observations, found just 20 percent of unrecorded cases. Numbers in the armed forces are a notorious example where the raw *Census* count and *Ministry of Defence* returns far from tally. This issue would be less important if all ethnic groups were similarly underenumerated since relative proportions would be the same, but this is not the case. Illegal immigrants would hardly be keen to respond, despite assurances of confidentiality. Furthermore, according to Tye (1995), "Because of the heavy concentration of both census non-response and ethnic minority groups in England in urban areas there are higher levels of non-response among the ethnic minorities". Simpson and Dorling (1994) have estimated, using a set of correction factors based on a set

¹⁷ This is the subject of current research with the *ESRC Estimating with Confidence* project.

of reasonable assumptions, that the non-white ethnic population is underestimated by 4.9 percent, whereas the white population is underestimated by 2.1 percent. The unemployment count is underestimated by 4.0 percent. Non-white unemployment is consequently disproportionately under-represented.

10 Exploring inter-ethnic unemployment differences

The huge sample size of the *SARs* provides a unique opportunity to ask some general questions about inter-ethnic unemployment differences. For the first time a multivariate analysis of separate female ethnic groups is undertaken consistent with the male analysis. A separate all-white minority group is also included, namely those whose country of birth was Ireland. It can be seen from Tables (5) that this group also has a high unemployment rate and serves to illustrate the complexity of the issue. It is not just a white versus black problem.

There are three broad explanations for higher ethnic unemployment rates. The first is characteristics and this seems to be the official view of the government for inter-ethnic differences. The then *Dept of Employment* in its *Gazette* (June 1995, page 256) stated that, "Factors which may explain the persistently higher rates of unemployment among ethnic minorities, apart from the younger age profile ... include ethnic minorities' generally lower level of qualifications and their industrial and regional distribution". It will later be shown that characteristics explain only a part of the differences seen in Tables (5) and (6).

The second explanation is discrimination. Direct evidence of this can be found in the revealing study of Brown and Gay (1985), where a coloured immigrant with exactly the same qualifications as a native white was sent out to apply for a variety of jobs. In two-thirds of cases when the white received a positive response, the black applicant was discriminated against to the extent that the employer would often lie that the post had already been filled. There is also direct survey evidence, confirming the widespread prevalence of discrimination. The *British Social Attitudes Survey* (averaged over the years 1983-91) has shown that over 50 percent of the population considered there to be a lot of prejudice against non-whites — even though much smaller numbers were prepared to admit to themselves being prejudiced. This study will show that discrimination and characteristics can not account for all of the inter-ethnic unemployment differences — something else is involved.

Discrimination is all about the majority acting against a minority group, but a third factor also impinges namely the cultural outlook of the minority group itself. Borjas (1985) and (1986) is the most well-known advocate of this idea.

He argues that different groups will take time to assimilate to the majority culture. For example, the Pakistani and Bangladeshi groups are of relatively recent arrival compared with other groups. The first step on the road to assimilation is for people to work for and cater to the needs of one's own ethnic group. Language difficulties and a stricter religious outlook would serve to exacerbate this tendency for the minority group to be more isolated and inward looking. The theoretical model will show how this taste for isolation can lead to higher equilibrium unemployment rates. It is apparent that a taste for isolation will limit economic opportunities and higher unemployment rates are a natural consequence. The higher rates among the predominately Muslim Pakistani/Bangladeshi group, which also has the largest problem with the English language, can be explained by this factor.

11 A theoretical framework

An imperfect information model is outlined to show how higher unemployment rates can arise among ethnic groups that are discriminated against and/or have a taste for isolation. It is set within the new job matching approach to unemployment, as pioneered by Pissarides (1990).

Suppose the money wage for an individual choosing to work outside the enclave is q . However, as result of discrimination and the degree of attachment to the ethnic enclave, the psychic wage is less than this. Let $w = q - D - F$ be the psychic wage. This is lower because of discrimination as measured by D and secondly by the worker's own distaste with working in the majority sector and this is measured by F . Discrimination could come from the employer or fellow workers and such unpleasant behaviour serves to make the individual feel worse off. Similarly, F represents the taste for isolation and has the same effect of lowering the psychic wage.

The framework does not preclude the possibility that discrimination could lead to a lower q as well as a lower psychic wage — the Becker (1971) perfect information framework which first introduces the useful concept of a discrimination coefficient, examines this idea. Here the focus of attention is the complementary idea of an unemployment differential. The important point is that there need be no association between the reservation wage and the level of D . In practice, there is a strong negative association between earnings and unemployment for males across ethnic groups and little or no association for females — but the model makes no prediction as to what should be the case here.

It is assumed that an unemployed worker does not know an individual firm's discrimination coefficient when searching for a job. This coefficient is only revealed to an individual once a contact is made with the firm. This captures the idea of imperfect information and of workers requiring time to distinguish good from bad employers. Unemployed workers do, however, have information on the overall distribution of D . The employers' discrimination coefficients are distributed according to $\phi(D)$, where D lies in the interval $0 \leq D \leq m$. Given the linear relationship between w and D the density function of wage offers, $\phi(w)$, will have the same functional form as $\phi(D)$.

Following Pissarides (1990), let U be an unemployed worker's expected return to search and R the discounted value from employment at the psychic wage w . Faced with this psychic wage, therefore, an unemployed worker will accept a job if $R \geq U$. The reservation wage is defined as that wage at which $R = U$. Hence all jobs that offer a wage greater than the reservation wage will have $R > U$ and will thereby be acceptable to the individual. By construction this also implies that there is a critical value of discrimination D^c , such that only those jobs where $D \leq D^c$ meet the reservation wage criterion.

Given that an unemployed worker receives UB in unemployment benefit, the expected present value of search for an unemployed worker is equal to

$$U = \frac{1}{r}(UB + \lambda(E(R|D \leq D^c) - U)). \quad (5)$$

D^c is the maximum value of employer discrimination above which any job offer will be refused and λ is defined as the probability of an unemployed worker receiving a job offer where $D \leq D^c$. If one offer is received period then this probability is

$$\lambda = \int_0^{D^c} \phi(D) dD. \quad (6)$$

The present value to the individual of accepting a job offer yielding w is given by

$$R = \frac{1}{r}(w + s(U - R)), \quad (7)$$

where s is the exogenously given job separation probability, $0 < s < 1$. To locate the critical value D^c which makes it just worthwhile to accept a wage offer, let D^c be the critical value that makes $R = U$. Given this then from eq.(7)

$$D^c = q - F - rU. \quad (8)$$

By taking a conditional expectation of eq.(7), and using eq.(5), we can substitute for U in eq.(8) to give

$$D^c = (q-F) - \frac{(r+s)UB + \lambda E(w|D \leq D^c)}{r+s+\lambda} \quad (9)$$

Appendix (2) shows that λ is decreasing w.r.t. F and UB . Furthermore, the equilibrium unemployment rate for an ethnic group characterised in this way is

$$u = \frac{s}{s + \lambda} \quad (10)$$

This is decreasing in λ . Consequently, the greater the degree of discrimination and the greater the taste for isolation, the higher will be the equilibrium unemployment rate.

12 A multivariate analysis of unemployment differences

The model has shown one way in which discrimination and a taste for isolation can exacerbate unemployment levels over and above any characteristic differences. This section attempts to disentangle these three effects. This will be done for males and females separately. The theory has shown that the discrimination effect, driven by the majority, and the taste for isolation effect, driven from within the enclave, are complementary and it will necessarily be difficult to separate these. Looking at a number of separate ethnic groups helps disentangle the two factors, rather than simply comparing a broad aggregate non-white group with the dominant majority. The idea is to separate out the characteristic effect from the two other factors. When this is done, it turns out that there are still significant unemployment differences across some ethnic groups, in particular between the Indian and the Pakistani/Bangladeshi groups. It is argued that this reflects a different taste for isolation because it is unlikely that the latter group suffers from a higher degree of discrimination.

Logit analysis is used to measure how more or less likely individuals from minority groups are to be unemployed after taking their characteristics into account. The underlying methodology is well-known and has been applied by Nickell (1980) to produce a summary picture of unemployment among British males.

The logit model is based on the following function

$$P(Y_i) = \frac{1}{1 + \exp(-\hat{\alpha}^Y X_i^Y)} \quad (11)$$

where $P(Y_i)$ is the probability of the i th individual from the Y th ethnic group being unemployed and where $\hat{\alpha}^Y$ is a vector of estimated coefficients and X_i^Y is an associated vector of characteristics. A separate logit model is fitted for individuals for each separate ethnic group. A set of coefficients will then be associated with each ethnic group and the next stage is to determine how much of any difference in the mean unemployment probability is due to differences in characteristics and how much is due to differences in how particular characteristics are rewarded - the coefficient effect. The latter quantity is identified as the composite D and F effect.

A modified version of the Gomulka and Stern (1990) decomposition is used to achieve this purpose. Suppose, in the absence of a D and F effect, that the vector of coefficients associated with individual characteristics would be α^* for everyone, but that the observed vector of coefficients is $\hat{\alpha}^Y$ for group Y and $\hat{\alpha}^Z$ for group Z , where Y can be thought of as the dominant low unemployment advantaged group and Z as the discriminated against and less assimilated minority. For a given set of characteristics, the change in the probability of unemployment in a move to complete assimilation would be

$$\Delta^Z = P(\alpha^* X^Z) - P(\hat{\alpha}^Z X^Z) \quad (12)$$

where X^Z is the vector of characteristics and a corresponding equation would exist for the comparison Y group. Construct this probability for each individual and then find the average probability for each group. The difference in these average probabilities is then

$$\bar{\Delta}^Z - \bar{\Delta}^Y = [\bar{P}(\hat{\alpha}^Y X^Y) - \bar{P}(\hat{\alpha}^Z X^Z)] + [\bar{P}(\alpha^* X^Z) - \bar{P}(\alpha^* X^Y)] \quad (13)$$

The first term in square brackets is seen to be the difference in the mean predicted probabilities of the two groups. In the logit equation this is the same as the difference in the sample unemployment rates.¹⁸ The non-discriminatory vector is unobservable, but following Oaxaca and Ransom (1994), the following relationship is assumed to hold for α^*

¹⁸ In probit analysis this is not necessarily true, but in practice the difference turns out to be extremely small. We also ran corresponding probit equations with virtually identical results.

$$\alpha^* = a\hat{\alpha}^Y + (1 - a)\hat{\alpha}^Z \quad 0 \leq a \leq 1. \quad (14)$$

The conjecture embodied in eq.(14) is that the complete assimilation would mean that α^* would lie somewhere between the advantaged dominant group vector and the disadvantaged group. Substituting into eq.(13) and re-arranging gives the following decomposition formula

$$\hat{f}^Y - \hat{f}^Z = \bar{\Delta}^Z - \bar{\Delta}^Y + [\bar{P}(a\hat{\alpha}^Y + (1 - a)\hat{\alpha}^Z)X^Y - \bar{P}(a\hat{\alpha}^Y + (1 - a)\hat{\alpha}^Z)X^Z], \quad (15)$$

where $\hat{f}^Y - \hat{f}^Z$ is the difference in sample unemployment rates. The Gomulka and Stern decomposition can be seen to be a further specialism of this general formula. The first specialism sets $a = 1$. In this case, it can be seen that $\bar{\Delta}^Y = 0$; it is assumed that there are no losses to the dominant group in a move to non-discrimination. The last term in square brackets is then that part of the difference in means accounted for by decomposing characteristics using the dominant group coefficients. The discrimination term, which is $\bar{\Delta}^Z$, is then just the residual part of eq.(15). This is the decomposition of coefficients using group Z characteristics as can be seen directly from eq.(13).

The second specialism sets $a = 0$. In this case the presumption is that the removal of discrimination means that the minority group experience no change; that is $\bar{\Delta}^Z = 0$ and it is the majority group's coefficients which change to that of the minority group. Characteristics are now decomposed using minority group coefficients as weights and the change in the majority group's unemployment probability (- $\bar{\Delta}^Y$ in this case) is measured as the difference in coefficients decomposed around the dominant group's characteristics.

The first specialism is the more plausible. It can be seen from Tables (5) and (6) that non-whites constitute a small minority of the workforce and that overall unemployment rates differ little from that of the indigenous white majority. Becker (1971) has also argued that, where the minority is small in number, the majority of the gains accrue to the minority group with the majority little affected and this idea was also seen in Section 2 in the context of earnings. If it were possible to identify a value for a other than the extreme values considered here, the discrimination terms could be computed directly from eq.(12) but remembering that two values would have to be constructed, one for the deterioration in the dominant groups's prospects and one for the improvement in the minority group. In other countries, where the discriminated group constitutes a majority or substantial minority, for example South Africa

or the case of Catholics in Northern Ireland, such an exercise might be useful.¹⁹ However, the presumption that discrimination represents exploitation and its removal means that things become worse for the majority reflects a particular view which may not actually be true. Thurow (1969) favours the view that whites will lose out. However, all groups can possibly benefit from a better degree of assimilation. So the correct coefficient is not just a question of relative numbers. In the British context, however, it is surely reasonable to assume the value of α to be at or near to 1. The decompositions reported in Tables (8) and (9) show the $\alpha = 1$ case.

13 The logit equation and unemployment differences

The controlling characteristics used in the logit equations are:

- (1) Age. Four banded dummies were used.
- (2) Region.
- (3) Whether born outside UK.
- (4) Carer. This concerns carers in the household, where there is another person in the household reporting a long-term health problem and the individual is in good health.
- (5) Long term-illness. This refers to the health of the individual.
- (6) Marital status.
- (7) Car ownership.
- (8) Type of housing tenure.
- (9) Qualifications. The *Census* collects limited information on qualifications. They are split into three levels (a) higher degrees (b) first degrees and (c) qualifications obtained at 18+ which are above GCE A level standard, but below first degree standard.
- (10) Family Type.
- (11) Moved in the last year. This refers to mobility within the UK, but includes a very small number who moved from abroad.

Table (7) is a summary logit, which pools the data and includes separate ethnic dummies to account for racial unemployment differences. The decomposition analysis is based on a separate logit equation fitted for each group. The signs and magnitudes obtained from the coefficients in the model are those which are to be expected, with most of the coefficients producing highly significant t-

¹⁹ Armstrong and Murphy (1994) document the facts concerning employment discrimination in Northern Ireland.

statistics. This illustrates the advantage of the huge sample sizes for both males and females.

A useful interpretation of the coefficients is provided by the columns showing the probability of unemployment for males and females. The probabilities for an individual in the default category is contained in the constant term. This produces probabilities of unemployment of 10.6 percent for males and 5.5 percent for females, in fact fairly close to the sample means. The default is someone aged 32-39, living in the South East, British born, in good health and not caring for a sick person, married, car-owner, owner occupier paying a mortgage, no qualifications, no children, not moved in the last year and white. An identical procedure is then undertaken for each variable with the only difference to the default category being that characteristic associated with the variable itself. For example, being a Pakistani/Bangladeshi rather than White raises the unemployment probability to 26.7 percent for males and 19.4 percent for females. The unemployment probabilities for all ethnic minority groups are higher apart from Irish females and for most by a considerable margin.

The relationship between age and unemployment takes the usual U-shape, reflecting diminished employment opportunities for individuals at the two extremes of the age distribution. There is a regional variation in unemployment incidence with greater incidence occurring in the North — so there is nothing of great surprise about the regional/age distribution. These findings give reassurance about the quality of this less frequently used data set in economic analysis.

The born outside UK variable is, as argued before, of considerable importance. However, in these two 'grand' regressions it must be carefully interpreted and does to some extent illustrate the limitations of the summary approach. At face value this coefficient suggests that foreign born do *worse*, but the problem is that this includes both white and non-white foreign born. What is of more interest is the difference between foreign born and UK born individuals restricted to just the ethnic minorities. When a separate logit is fitted for the minority groups only, this produced a negative and significant coefficient for males and a positive but insignificant coefficient for females. This suggests that UK born males from an ethnic minority experience a higher incidence of unemployment compared with their foreign born counterparts. This result is qualified somewhat at a later stage.

The positive and highly significant coefficient attached to the long-term ill variable is not unexpected. The Carer variable suggests that having to look after another household member increases the risk of unemployment. Notice that the effect is more significant for males, which is somewhat counter-intuitive until

it is remembered that female carers are more likely to describe themselves as economically inactive rather than unemployed.

Household composition is also found to have an effect on unemployment. Individuals who are single, divorced or widowed are more likely to be unemployed than their married counterparts because employers often view marriage as imposing increased responsibility on the individual and therefore see this group as more reliable. Married persons are also likely to be more motivated as are heads of households. Not being part of a family — independent of marital status — also raises the probability of unemployment. The presence of children increases the probability of unemployment and more strongly so if there are dependent children. This would suggest that the increased replacement ratio effect from social security benefits which accompanies more children outweighs the need to work harder to support the family. An interesting finding is that cohabiting couples with no children have a lower incidence of unemployment than their married counterparts. We offer no explanation for this observation! Although the coefficient on a lone parent is positive and significant, the problems of this group seem to be somewhat exaggerated since the coefficient is less than that of all single people. Not surprisingly, lone mothers are in a worse position than lone fathers.

Household tenure is thought to be a major determinant of labour mobility and will, therefore, influence the incidence of unemployment. Residents who live in council accommodation (that is publicly owned housing rented out on favourable terms) are the least geographically mobile and this is confirmed by the large positive coefficient on this variable. Apart from this direct effect, it is also clear that living in council accommodation will be correlated with other characteristics, not otherwise controlled for, which makes employment less likely. It is difficult to be precise as to what the source of this lack of work ethic is, but what cannot be denied is the fact of its existence. Living in owner occupied housing also seems to make the occupier more dynamic in the labour market. Males who rent their accommodation as part of their job or business are most likely to be in employment but the female coefficient is insignificant.

Qualifications are an important component of a model of this type. The attainment of higher qualifications considerably reduces the incidence of unemployment but notice there does not appear to be much of a cumulative return effect as the coefficients and t-statistics on one and two or more qualifications are very similar. Car ownership has a very strong negative influence on unemployment, but in reality most people have access to a car, so it should only affect a small number of individuals. An inability to drive clearly

inhibits job search and also lack of a car could be an indicator of a non-materialistic outlook.

The remaining ethnic dummy variables are what are of main interest to this study. They show that whites experience a significantly lower incidence of unemployment compared with all groups apart from Black-Caribbean females, Irish females, Chinese males and females, after accounting for characteristic differences. Of these, only the coefficient on Irish females is negative. The highest coefficients for both males and females are possessed by Pakistanis/Bangladeshis, followed by Indians and Black-Africans. The situation of Indians is a very interesting one. Given the small unemployment difference compared with whites revealed in Tables (5) and (6), one might have expected a small coefficient on the Indian dummy, but this is not the case. This issue will be discussed in greater detail in the decomposition analysis.

As always in a study of this type there is an issue of whether all the explanatory variables are truly exogenous. Car ownership and housing tenure are two cases in point. Elsewhere, Leslie and Field (1992), have defended the idea that it is lack of car ownership that restricts job search, rather than unemployment generating car loss. Housing tenure is rather more problematic. Unemployed workers are more likely to qualify for council housing and are less likely to have the resources necessary for house purchase. The logit equations have all been re-run dropping these contentious variables. There is little change, though, not surprisingly, there is a somewhat larger role for coefficients in the decompositions. A final point is that others have used and defended the use of housing tenure in similar models, for example Nickell (1980) and McCormick (1983).

14 Decomposition analysis

The decompositions are shown in Table (8) for males and females separately. This compares whites with various minority groups, apart from the final column which compares Indians with Pakistani/Bangladeshis.²⁰ The table also contains

²⁰ A slight complication arose for Chinese males and the three Black and Pakistani/Bangladeshi female groups. Some characteristic terms were dropped from the logit due to the perfect prediction problem. The Gomulka Stern decomposition works, but is potentially misleading in that it imposes a zero coefficient for the non-white groups whose characteristics were dropped, leading in favour of a coefficient effect. The results here are based on imposing the white coefficients for those missing characteristics; in effect imposing a zero coefficient effect for the problem characteristics. In practice the correction is very small, because of the small number of characteristics involved — a maximum of three out of

a χ^2 likelihood ratio test for the joint hypothesis of coefficient equality. The hypothesis of common slope coefficients is rejected for whites and each of the minority groups apart from Chinese females. As noted previously, the decompositions use case 1, where $\alpha = 1$. Males are first considered.

The mean unemployment differential between whites and the three black groups is at least 14 percent. Characteristics are dominant for Black-Others and Black-Caribbeans, whereas for Black-Africans coefficients dominate slightly. Notice also that the Black-Other group consists in the main of UK born workers — 71 percent for males and 75 percent for females. There is nothing in these findings to suggest any greater degree of better assimilation for this group. Indians only experience a slightly higher unemployment rate compared with whites (3.3 percent). The decomposition of this differential proves particularly interesting as it indicates that Indians enjoy more favourable employment enhancing characteristics compared with whites. This observation implies that if Indians possessed white coefficients then the Indian unemployment rate would be lower than the white rate. Pakistanis/Bangladeshis suffer a far higher unemployment differential (20 percent) than Indians. Although they have less favourable characteristics compared with whites, over 75 percent of the difference can still be explained by coefficient differences.

The Chinese are in a similar position to the Indians in the sense that their small unemployment disadvantage is the result of them possessing more favourable characteristics compared with whites but the lower return to these characteristics more than offsets this — but note that these differences are tiny compared to other groups. The Chinese seem to be the most successful of all the ethnic minorities, despite the fact that they seem to be just as isolated from the majority as other groups. One explanation is the Chinese entrepreneurial tradition, giving ready access to capital, and a high value placed on education and qualifications. The Other Asian group has marginally worse characteristics but the bulk of the difference is again accounted for by coefficients. The opposite is true for the Irish where the majority of their differential with whites is explained by their less favourable characteristics. However, the Irish are by no means fully assimilated, so marginalisation is not just a question of skin colour. Other work of ours using the *Labour Force Survey* confirms this. Treating minorities as a single group, around two-thirds of their unemployment differential with whites is accounted for by coefficient differences. This demonstrates the point that

35. The decompositions are, therefore, consistent in the number of characteristics across the various groups.

separating into ethnic groups provides far more revealing detail, because of the wide differences across these groups.

For females, the unemployment differential between the combined minority groups and whites is smaller than for males. Coefficient differences still dominate but this effect is not as strong as it is for males. Otherwise, the results are consistent with those observed for males. Characteristic differences are the more important source of the unemployment differential between the black groups and whites, while coefficient differences continue to dominate for Asian females. However, unlike their male counterparts, Indian and Chinese females do not possess more favourable characteristics compared with whites. The Pakistani/Bangladeshi differential with whites is almost 25 percent, with coefficient differences again being the major contributor. The Irish differential on the other hand is far lower than it was for males with the 1 percent higher unemployment rate almost entirely the result of less favourable characteristics. The contrasting employment fortunes of Indian and Pakistani/Bangladeshi females is very similar to what was observed for males.

A common theme which appears to be present in both parts of the table is that characteristic differences seem to be more important for the blacks and Irish, while coefficient differences tend to dominate for Asians. This suggests that Asians suffer more discrimination or are less well assimilated in the British labour market than groups from other ethnic origins.

The clearest exception to the gender comparisons is the Black-Caribbean group. Female coefficients are much smaller than those observed for males, with characteristics accounting for the entire unemployment differential. This result may reflect a matriarchal culture with women assuming a more dominant bread-winning role. For example, the number of lone parents among Black-Caribbean women of working age is 36 percent compared with a 12 percent sample average. This is supported by Holdsworth (1995).²¹

15 The Pakistani/Bangladeshi group

The final column in Table (8) seeks to explain the considerable unemployment differential between Indian and Pakistani/Bangladeshi males. Once again it is

²¹ We have also undertaken an additional decomposition (not reported) for females based on a out of employment/employment dichotomy. For females, becoming inactive is an alternative to unemployment. This re-emphasises the special position of Black Caribbean women as they are more likely to be participants than white women.

found that Pakistanis/Bangladeshis possess less favourable characteristics but the majority of the differential is caused by coefficient differences. This difference between Indians and Pakistani/Bangladeshis is of considerable interest, because it provides confirmation of the point made earlier that differences are not just the result of discrimination. It is possible, but unlikely, that the Pakistani group is more discriminated against than Indians. This illustrates the complexities of Britain's ethnic minorities. For a variety of reasons, such as a lack of language skills, later arrival at a time of economic stagnation, and a taste for isolation resulting from a stricter religious observance, the Pakistani group is much less assimilated and considerable unemployment differences would still remain in the absence of discrimination. What can not be disputed is that this broad brush approach successfully identifies considerable inter-ethnic differences and the questions that require more extensive case study investigation.

One obvious cultural difference between Indians and Bangladeshi/Pakistanis is religion and this may contribute to different degrees of isolation. According to Peach (1990), 98 percent of Pakistanis and 90 percent of Bangladeshis are Muslim, whereas the figure for Indians is just 10 percent. The latter are mainly Hindu or Sikh. Apart from religion, there is the additional factor of language which exacerbates the difficulties.

There is no one single index or number that can be quoted to 'prove' that Muslim groups are more economically isolated than other ethnic minorities. Rather the aim here is to build up a general picture from a variety of sources. The following is just a sample from a huge literature, much of which is based on very small case studies or anecdotal evidence based on a close familiarity and knowledge of the Muslim community. Perusing the journals specializing in ethnic matters will throw up many studies of Muslim groups. The frequently refer to their strong sense of separateness from the majority culture. Peach and Glebe (1995) is a good recent example when they speak of the Muslim group as being "exceptionally poor and marginalised". They also quote a Harris Opinion Poll survey, in which 32 percent of Muslims are reported to prefer to live in an exclusively Muslim area.

Muslim communities therefore tend to be much more concentrated, particularly in urban areas of London, the West Midlands and large Northern conurbations such as Manchester and Bradford. Robinson (1986) has shown that within particular localities, the Pakistani community is the one that is the most segregated. Although, not surprisingly, there is considerable segregation of Indians from

whites, the so-termed index of dissimilarity is highest for the Pakistani group.²² Robinson also shows that isolation is most often a matter of choice rather than necessity, though naturally the presence of racial hostility would exacerbate any such tendency.

Peach (1989) also highlights the concentrated nature of the Bangladeshi population. Half of their population in London live within the small borough of Tower Hamlets. The *SARs* provide some further evidence. One question asks about distance to work. It might be expected that commuting distances would be smallest for the more isolated communities and this does indeed turn out to be the case. 45.1 percent of Pakistani/Bangladeshi group commute 2 kilometres or less to work (or work at home), whereas for the Indian group it is 33.1 percent. This compares with 34.5 percent for whites. Method of transport also provides some further evidence with 14.1 percent of Pakistani/Bangladeshis walking to work compared with 8.6 percent of Indians and 7.9 percent for whites.

Religious custom means that the Muslim community lends itself to a greater degree of economic isolation, whereas other groups are generally much more easy going in their religious observance. Burgin and Edson (1967), in an early study of the problems facing the newly arrived populations in adapting to the British education system, emphasised the religious divide. This desire to remain apart in order to retain a distinctive identity has not diminished. In a fascinating study, Werbner (1990) describes the alienation felt by British Muslims. Parker-Jenkins (1990) still finds a strong desire for the Muslim community to be apart. She writes,

"Cultural diversity in Western Societies has provided ample opportunity for teaching to reflect different perspectives on the family. Yet for many Muslims this approach appears as a *competing* perspective which challenges and undermines their own identity" (p. 570).

Another example of the greater degree of isolation of the Pakistani community is to examine participation rates among females. The *LFS* shows that on average

²² See his Appendix Tables 9.4 — 9.6. The index of dissimilarity is derived from the Gini curve. For each tract of interest the proportion of the minority group is calculated and these are then cumulated from the lowest to the highest — the Gini curve. The dissimilarity index is the maximum distance between the Gini curve and the line of complete equal racial mixing. The measure is described in Duncan and Duncan (1955). For Pakistanis the figure was 84.5 per cent, meaning that roughly that proportion would have to move from their present location to achieve an equal racial balance.

from 1989-91, 24 percent of Pakistani/Bangladeshi women were economically active (up from just 17 percent in 1986) and of these 24 percent were actually unemployed so the proportion in work is extremely small. By contrast, 55 percent of Indian women were active — almost the same as the white proportion — and only 10 percent of these were unemployed. Again this reflects a strong cultural difference with Muslim women expected to remain at home after leaving school and prepare for marriage.²³ However, the quite sharply rising participation rates do indicate that these centuries old traditions are beginning to break down.

Isolation also arises from the special factor of language disadvantage. This is an important factor for the Pakistani/Bangladeshi group. Lazear (1995) analyses the recent phenomenon of the failure of the language melting pot with Hispanic groups in the USA retaining Spanish as a first language. He argues that a rapid influx into concentrated areas lowers the incentive to adapt to the indigenous language. The validation survey of the 1991 Census, designed to explore the reason for non-response among ethnic minorities, found particular language difficulties among Asian Muslims. Lack of language restricts opportunities to the local enclave.

Reed (1992) has made a special study of the language problems of Pakistani South Asians — and the problems of the Bangladeshi groups would be similar. The technical term here is 'dialect interference' which restricts the cognitive and reading abilities of children. According to Reed, the problem for South Asians is that they are predominately second language learners, whereas for other ethnic groups the indigenous English is a second *dialect* problem. English is not the language spoken at home by the majority of Pakistani/Bangladeshis. Many are from a poor rural background and progress in a new language is limited. Reed, however, notes that language problems, whilst significant, are gradually being overcome but significant disadvantage will remain for a long time. Whitmarsh and Harris (1996) give more recent evidence. Whilst the younger age groups were able to speak English, only 72 percent of Bangladeshis aged 30-49 were fluent. Only 10 percent had English as a first language, compared with 32 percent of Indians. For Indians, 94 percent of the 30-49 age group were fluent in English.

Taylor (1992) reports that Pakistani and Bangladeshi children do significantly worse in school and are less likely to have access to higher education. Burgin and Edson (1967) show that the largest group of non-English speaking children

²³ See Berrington (1994).

admitted to their school was Pakistani. Data from the *LFS* show that this group has the largest proportion of those reporting no formal educational qualifications. It is also true that many Muslims are keen on a policy of separate schools for their children, further reinforcing the sense of a community isolated from other groups.

Information from the *Fourth National Survey of Ethnic Minorities* is very instructive in this regard, since it elicits information on language ability and religious identification. Muslims were more likely to be unemployed than Hindus and Sikhs. Unemployment was associated with low levels of skill in English, especially among Pakistanis and Bangladeshis. The latter two groups were less likely to speak English well compared with Indians and African Asians.²⁴

Self-employment is another good indicator of non-assimilation. Owen and Green (1992) report that self-employment among Pakistani and Bangladeshi people is among the highest of any group and Modood *et al.* (1996) provide more recent evidence. In 1981, 30 percent of Bangladeshi males in work were self-employed and 29 percent of Pakistanis, compared with 14 percent of Indians. In recent years these figures have equalised somewhat, so there is an impression (rising female participation rates is another example) of greater integration as second and subsequent generations start to reject the old customs. However, a considerable gulf still remains.

Rafiq (1992) has made a special study of Muslim and non-Muslim owned Asian businesses in the Bradford area and has noted considerable differences. In particular, Muslim owned businesses tend to trade among the Muslim community with much less contact with other groups. The other feature that Rafiq reports is that Muslim owned businesses tend to employ Muslims — only 18 percent of non-Asians were employed by the larger Asian firms and the small firms are, naturally enough, all Muslim.

There is no formal test of isolation and the issue of inter-ethnic differences in unemployment is bound to touch on areas that are not purely economic or amenable to standard econometric techniques. By adopting a flexible investigative technique of formal and informal analysis of evidence, a convincing case that characteristics and discrimination alone cannot explain the high unemployment rates of some groups has been put forward.

²⁴ This information was supplied to us by Richard Berthoud of the *Policy Studies Institute* and is gratefully acknowledged.

16 Differences between British and foreign born

It is also clear from Tables (5) and (6) that foreign born is the one characteristic where there are enormous differences across the respective populations, with whites dominated by UK born and non-whites by the born abroad group. It requires only a small difference in coefficients to generate a large characteristic effect here. In view of this, it would obviously be a logical next step to further differentiate into the UK born and born abroad categories for each ethnic group. Unfortunately, this is not possible because sample sizes would be too small for the UK born category. Table (9) shows a comparison of the ethnic minorities, treated as an aggregate excluding the Irish, split into UK born and foreign born. As a comparison, UK born whites and foreign born whites (excluding the Irish) are also compared. The raw unemployment differential for ethnic minority males is 9.2 percent and 6.3 percent for females. For whites, there is only a small difference in these rates and the decomposition suggests an offsetting coefficients and characteristics effect for males, but not unexpectedly there is much greater homogeneity in the white samples. UK born ethnic minorities seem to have a significant under-performance.

However, the decomposition analysis paints a much less pessimistic picture. Table (9) shows that it is characteristics that totally dominate. In other words, the overall position remains ambiguous. It cautions us against the pessimism of the raw data, but, on the other hand there is nothing here to support the view that UK born ethnic minorities are better assimilated.²⁵

This contrasts with the findings on earnings, where the British born seem to be improving.

Some further information from the Gomulka and Stern decomposition would be useful, concerning the relative contributions of particular characteristics and particular coefficients in the overall decomposition. There are, however, major obstacles involved in attempting such an exercise. First of all, Jones (1983) has pointed out that it is logically impossible to disentangle the relative coefficient contribution, so nothing more can be said here.

Characteristics do not suffer from this 'units of measurement' problem. The weights attached to particular characteristics are the coefficients; any linear

²⁵ A disaggregated set of comparisons was attempted for males only. Indian male showed about a $\frac{1}{4}$ coefficient effect and for the Pakistani/Bangladeshi group it was exclusively a coefficient effect, but this difference was not statistically significant for this second group. Thus there is tentative evidence of some additional factor militating against Asians but the lack of statistical significance demonstrates the sample size problem.

transformation would leave the relative contributions unchanged. There is, however, a problem associated with extracting the contribution of individual characteristics from a logit or probit equation. Unlike a linear regression, the mean probability cannot simply be summed as separate coefficient times the average value of characteristics. An informal solution to the problem was therefore adopted. This involved fitting the linear regression model with a one-zero dependent variable and exactly the same set of explanatory variables. Obviously this is not a well-founded procedure, but in practice it turned out that the decomposition into respective components was very close to the logit model. Only a small proportion of the predicted values fell outside of the zero-one acceptable range. The contribution from characteristics in regression model were split into their respective components. This approach is suggestive, rather than being strictly correct; nevertheless it provides useful supplementary information.

Which characteristics are important to the overall characteristics effect? Applying the linear regression model to Table (9), the characteristics in order of importance, for both males and females, are not surprisingly age and marital status. Young and single means unemployment prone and that is what the UK born ethnic minorities generally consist of. There is also a lesser role for housing tenure and qualifications. Of the four groups, the highest proportion of unqualified labour belongs to British born non-whites. However, with the large student population and with the inevitable ageing of the UK born minority population all these characteristics should start to have a beneficial effect on employment prospects.

17 Concluding comments

By combining the two separate household and individual *Samples of Anonymised Records of the Census*, this study has established a lot of very useful information about the relative employment prospects of Britain's ethnic minorities. In addition, it offers the first detailed analysis of female ethnic minorities and shows that there are equally significant enclave effects for this group and that there are equally significant differences as with males.

The ethnic minorities seem to fall into two broad categories. It seems that the African groups and the Irish possess less favourable employment enhancing characteristics, but there are some additional effects of non-assimilation as exemplified by different coefficients attached to particular characteristics. For the Asian groups (excepting the Chinese) coefficient differences have a more important role. The Pakistani/Bangladeshi group, both males and females, stands

out as particularly disadvantaged. This confirms earlier work and is also consistent with their much lower earnings observed in the recently available *LFS* data. This suggests that there are greater amounts of non-assimilation among the Asian groups, but we are careful to stress that not all of this comes from discrimination. This comes across most clearly in the strongly disadvantaged Pakistani/Bangladeshi group where other factors must operate.

A marginalised status is the most serious problem facing immigrants and ethnic minorities in Europe today. This analysis has indicated that it can not all be conveniently explained away by blaming it all as a characteristic effect. The methods of this paper could be transferred to any number of Western European countries and similar results would be the most likely outcome. This is a tricky and sensitive problem, not least the likely hostile reaction of the majority to any policy that smacks of positive discrimination. This paper does not offer any quick remedies, because there are none.

Of particular importance is the performance of UK born ethnic minorities. Our finding is that, once characteristic differences have been taken into account, this group is doing neither worse nor better than their foreign born counterparts. The UK born group is of great importance in establishing how well recent arrivals have assimilated into the majority culture. It would, however, be of great interest to focus on specific groups here. For example, the Pakistani/Bangladeshi group does particularly badly, but despite the near one million observations, there are only 114 UK born unemployed females in this group and this is after combining the two separate *SAR* samples; this is hardly enough for any useful multivariate analysis. There are even smaller group sizes, for example just 21 unemployed British born Chinese males. Relative to the overall cost of the *Census*, there is a good case for even larger *SARs*.

TABLE (1)
Unemployment rates (percent male and female) of foreign and immigrant populations
in various OECD countries for 1993

Country	Native Born	Share of Labour Force	Unem. Rate	Foreign Born	Share of Labour Force	Unem. Rate
Belgium	Aged 15-64	91.6	7.1	Aged 15-64	8.4	19.4
	Aged 15-24	91.1	17.0	Aged 15-24	8.9	33.3
Denmark	Aged 15-64	98.1	10.5	Aged 15-64	1.9	28.5
	Aged 15-24	98.4	14.4	Aged 15-24	1.6	25.3
France	Aged 15-64	93.7	10.8	Aged 15-64	6.3	20.7
	Aged 15-24	6.3	20.7	Aged 15-24	5.9	32.2
Germany	Aged 15-64	89.4	4.9	Aged 15-64	10.6	12.7
	Aged 15-24	85.1	4.8	Aged 15-24	14.9	14.1
Ireland	Aged 15-64	97.0	15.2	Aged 15-64	3.0	20.5
	Aged 15-24	97.5	22.5	Aged 15-24	2.5	34.3
Netherlands	Aged 15-64	96.1	5.8	Aged 15-64	3.9	19.7
	Aged 15-24	95.6	9.7	Aged 15-24	4.4	25.4
Sweden	Aged 15-64	94.9	7.6	Aged 15-64	5.1	20.9
	Aged 16-24	95.3	17.9	Aged 16-24	4.7	27.6
Australia	Aged 15-64	74.7	10.4	Aged 15-64	25.3	12.8
	Aged 15-24	88.4	18.2	Aged 15-24	11.6	22.5
Canada	Aged 15-64	80.5	12.4	Aged 15-64	19.5	13.0
	Aged 15-24	88.6	21.6	Aged 15-24	11.4	23.7
United States (1990)	Aged 15-64	90.6	6.2	Aged 15-64	9.4	7.7
	Aged 16-29	91.1	9.8	Aged 16-29	8.9	10.1

Source: OECD (SOPEMI).

Note: The groups are not exactly comparable to the British definition of an ethnic minority, which include British born members of the ethnic minorities. Own nationals would be excluded here. Also many European countries have substantial white immigrant populations, which are excluded from the British ethnic minority definition.

TABLE (2)
Unemployment Rates by Ethnic Origin: 1979-1995

Year	Males		Females	
	White	Non-White	White	Non-White
1979	4.4	6.0	5.7	10.8
1981	9.7	17.2	8.7	15.8
1983	12	22	10	19
1984	11.3	22.4	11.1	20.4
1985	11.0	21.7	10.4	19.0
1986	11.1	20.5	10.2	19.4
1987	10.7	17.7	9.9	16.3
1988	8.6	14.2	8.2	12.3
1989	6.9	12.7	6.7	11.0
1990	6.6	11.4	6.2	11.0
1991	8.7	16.2	6.9	13.6
1992	11.0	20.0	6.9	13.6
1993	11.7	23.5	7.0	17.2
1994	10.6	24.9	6.8	16.0
1995	9.4	20	6.3	17

Source: Labour Force Survey (1979-83: LFS Reports; 1984-95 and Sly (1996).

Notes: Rates calculated for ILO unemployed aged 16 and over.

Rate=unemployed/(self-employed+employed+unemployed+government scheme). Rates are given for Spring of each year (The LFS became quarterly in 1992).

There are some methodological and quality differences between the annual and quarterly series which may affect comparability.

TABLE (3)

Average Gross Hourly Earnings by Ethnic Group: 1992 Q4 - 1995 Q2

	Males	Females
White	5.48	3.93
Non-Whites	4.89	4.03
Foreign born Whites	6.33	4.76
UK born Non-Whites	4.47	4.03
Foreign born Non-Whites	5.03	4.02

Source: Labour Force Survey

Notes: 1. January 1987 prices.

2. Includes full time and part-time employees.

TABLE (4)

Year of Arrival in UK of Working Age Population by Ethnic Group¹

	Year of Arrival (in percentages)							
	UK Born	Pre 1960	1960s	1970s	1980s	1990s	Year Not Stated	Sample Size
Whites	95.61	1.15	1.17	0.84	0.67	0.53	0.03	170118
Black-Caribbeans	46.04	9.07	34.99	5.68	2.81	1.15	0.26	1566
Black-Africans	18.51	1.22	9.46	16.22	30.81	23.24	0.54	740
Black-Other	78.81	1.79	9.25	3.88	3.58	2.69	0.00	335
Indians	16.06	3.37	27.79	33.58	14.66	4.18	0.37	2728
Pakistanis/ Bangladeshis	14.21	1.76	25.39	24.78	25.06	8.31	0.50	1816
Chinese	8.49	0.69	14.91	34.86	26.61	13.76	0.69	436
Other Asians	4.99	1.15	9.98	30.90	25.14	27.83	0.00	521
Other-Others	28.67	4.21	12.91	19.16	18.07	16.98	0.00	735
Non-Whites	23.56	3.62	23.43	23.00	17.11	8.94	0.34	8878
Total	92.04	1.27	2.27	1.94	1.49	0.95	0.04	178996

Source: Labour Force Survey

Notes: 1. The sample consists of 11 pooled quarters of the LFS starting from the Winter of 1992. It contains only respondents interviewed in their fifth wave, which implies there are no overlapping cases.

TABLE (5)

Summary Economic Statistics for Males: by Ethnic Group

	Number in Sample	Percentage of Total	Average Age	Percentage Employed ¹	Percentage Unemployed ²	Percentage Students	Percentage Inactive ³
Whites	487903	94.63	38.34	76.75	9.51 (11.0)	5.22	8.52
Black-Caribbeans	4826	0.94	37.50	63.90	21.38 (25.1)	5.22	9.49
Black-Africans	2085	0.40	32.95	46.00	20.48 (30.8)	25.52	8.01
Black-Other	1119	0.22	29.51	61.93	21.18 (25.5)	11.26	5.63
Indians	8213	1.59	36.04	69.86	11.59 (14.2)	11.49	7.05
Pakistanis/Banglads	5281	1.02	34.02	51.64	23.16 (31.0)	13.94	11.27
Chinese	1618	0.31	33.84	61.00	7.66 (11.2)	26.14	5.19
Other Asians	2078	0.40	34.69	64.20	10.97 (14.6)	19.78	5.05
Other-Others	2476	0.48	33.29	62.80	15.19 (19.5)	14.94	7.07
Total Non-Whites	27696	5.37	35.14	61.66	16.61 (21.2)	13.70	8.05
Whites born in UK	466587	90.49	38.27	76.90	9.47 (11.0)	5.13	8.49
Whites born abroad ⁴	15252	2.96	37.54	74.69	8.84 (10.6)	9.40	7.03
Irish Born Whites	6064	1.18	45.26	70.22	13.95 (16.6)	1.42	14.41
Non-Whites born in UK	7652	1.48	24.70	51.44	20.35 (28.4)	23.98	4.23
Non-Whites born abroad	20044	3.89	39.13	65.56	15.18 (18.8)	9.77	9.49
Total Minorities	33760	6.55	36.96	63.20	16.13 (20.3)	11.49	9.13
Whole Sample	515599	100.00	38.17	75.94	9.89 (11.5)	5.68	8.49

Source: Samples of Anonymised Records (Crown Copyright)

- Notes: 1. Consists of full time employees, part time employees, self employed and workers on a government scheme.
 2. Unemployment rate in parentheses ie. number of unemployed divided by the employed and the unemployed.
 3. Consists of permanently sick, retired and other inactive individuals.
 4. Excluding the Irish Republic.

TABLE (6)

Summary Economic Statistics for Females: by Ethnic Group

	Number in Sample	Percentage of Total	Average Age	Percentage Employed ¹	Percentage Unemployed ²	Percentage Students	Percentage Inactive ³
Whites	453321	94.36	36.37	62.82	4.45 (6.6)	5.86	26.87
Black-Caribbeans	5170	1.08	35.32	63.02	9.38 (13.0)	6.79	20.81
Black-Africans	1995	0.42	31.55	43.11	13.98 (24.5)	17.89	25.01
Black-Other	1293	0.27	28.48	52.98	12.37 (18.9)	11.83	22.82
Indians	7800	1.62	34.27	51.65	7.63 (12.9)	10.55	30.17
Pakistanis/Banglads	4724	0.98	33.51	17.32	7.92 (31.4)	11.37	63.40
Chinese	1687	0.35	33.20	50.39	3.91 (7.2)	22.29	23.41
Other Asians	2290	0.48	34.64	47.34	6.68 (12.4)	13.10	32.88
Other-Others	2132	0.44	31.98	48.50	8.16 (14.4)	16.04	27.30
Total Non-Whites	27091	5.64	33.44	46.58	8.44 (15.3)	11.96	33.03
Whites born in UK	431569	89.83	36.31	63.00	4.41 (6.6)	5.81	26.78
Whites born abroad ⁴	16069	3.34	36.01	57.76	5.17 (8.2)	8.63	28.45
Irish Born	5683	1.18	42.14	63.24	5.24 (7.6)	1.85	29.67
Non-Whites born in UK	7879	1.64	24.90	46.35	11.38 (19.7)	22.95	19.32
Non-Whites born abroad	19212	4.00	36.94	46.67	7.23 (13.4)	7.45	38.65
Total Minorities	32774	6.82	34.94	49.47	7.88 (13.8)	10.20	32.45
Whole Sample	480412	100.00	36.21	61.90	4.67 (7.0)	6.20	27.22

Source: *Samples of Anonymised Records* (Crown Copyright)

- Notes: 1. Consists of full time employees, part time employees, self employed and workers on a government scheme.
 2. Unemployment rate in parentheses ie. number of unemployed divided by the employed and the unemployed.
 3. Consists of permanently sick, retired and other inactive individuals.
 4. Excluding the Irish Republic.

TABLE (7)

Summary Unemployment Logit

	Males				Females			
	Mean	Coeff.	t-stat.	Prob.	Mean	Coeff.	t-stat.	Prob.
Constant	—	-2.132	78.853	0.106	—	-2.844	73.715	0.055
Aged 24 or under	0.171	0.303	15.381	0.138	0.198	0.632	22.084	0.099
Aged 25-31	0.187	0.087	4.919	0.115	0.189	0.304	11.515	0.073
Aged 40-49	0.234	-0.095	5.337	0.097	0.258	-0.126	4.783	0.049
Aged 50 or over	0.217	0.218	11.791	0.129	0.163	0.011	0.350	0.056
North	0.053	0.189	7.734	0.125	0.053	0.129	3.626	0.062
Yorkshire & Humberside	0.088	0.193	9.169	0.126	0.087	0.014	0.435	0.056
East Midlands	0.074	0.053	2.249	0.111	0.074	0.020	0.603	0.058
East Anglia	0.038	-0.065	2.016	0.100	0.037	-0.061	1.313	0.052
Inner London	0.042	0.118	4.489	0.118	0.046	0.177	5.065	0.065
Outer London	0.078	0.030	1.261	0.109	0.080	0.040	1.233	0.057
South West	0.083	0.080	3.434	0.114	0.082	0.050	1.495	0.058
West Midlands	0.096	0.079	3.741	0.114	0.094	0.159	5.348	0.065
North West	0.111	0.243	12.446	0.131	0.112	0.247	8.932	0.069
Wales	0.048	0.295	11.410	0.137	0.047	0.212	5.560	0.067
Scotland	0.089	0.446	21.463	0.156	0.091	0.408	13.830	0.080
Born outside UK	0.075	0.051	1.852	0.111	0.075	0.206	5.995	0.067
Ill in household	0.100	0.182	11.413	0.125	0.092	0.186	7.864	0.065
Limiting long-term illness	0.043	0.746	36.264	0.200	0.033	0.857	28.082	0.121
Single	0.312	0.478	22.125	0.161	0.290	0.333	10.997	0.075
Divorced or Widowed	0.065	0.569	21.930	0.173	0.099	0.386	11.817	0.079
Car Owner in household	0.844	-1.092	90.912	0.038	0.839	-0.846	48.811	0.024
Own outright	0.136	0.325	19.842	0.141	0.126	0.167	6.586	0.064
Rented privately	0.061	0.584	28.980	0.175	0.061	0.415	14.633	0.081
Rented with a job or business	0.026	-0.552	12.385	0.064	0.023	-0.002	0.040	0.055
Council House	0.139	1.050	77.068	0.253	0.125	0.810	41.300	0.116
1 higher qualification	0.104	-0.724	30.183	0.054	0.106	-0.620	19.564	0.030
2 or more higher qualifications	0.070	-1.050	29.903	0.040	0.061	-0.781	16.547	0.026
Head of household	0.495	-0.135	11.567	0.094	0.323	-0.099	5.757	0.050

Not part of a family	0.143	0.246	9.316	0.132	0.125	0.324	8.470	0.074
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TABLE (7) (Contd)

Married with dependent children	0.352	0.179	9.646	0.124	0.312	0.107	3.886	0.061
Married with non-dependent children	0.191	0.114	5.395	0.117	0.181	-0.055	1.718	0.052
Cohabiting with no children	0.046	-0.446	12.372	0.071	0.060	-0.241	5.314	0.044
Cohabiting with children	0.031	0.272	8.263	0.135	0.025	0.335	6.706	0.075
Lone parent	0.055	0.132	4.655	0.119	0.101	0.302	8.033	0.073
Moved in the last year	0.112	0.225	13.516	0.129	0.120	0.313	13.939	0.074
Black-Caribbean	0.009	0.439	9.859	0.155	0.012	0.042	0.733	0.057
Black-African	0.003	0.836	11.337	0.215	0.003	0.681	8.198	0.103
Black-Other	0.002	0.469	5.262	0.159	0.003	0.385	3.986	0.079
Indian	0.015	0.606	13.683	0.179	0.014	0.806	14.599	0.115
Pakistani or Bangladeshi	0.009	1.124	24.194	0.267	0.004	1.421	18.924	0.194
Chinese	0.002	0.157	1.528	0.122	0.003	0.070	0.513	0.059
Other Asian	0.003	0.440	5.167	0.156	0.004	0.544	5.381	0.091
Other ethnic group	0.004	0.489	7.121	0.162	0.004	0.451	4.829	0.084
Irish	0.011	0.174	3.458	0.124	0.012	-0.140	1.939	0.048
Pseudo R ²	0.152				0.120			
Log likelihood	-132271.98				-70940.942			
Sample size	437,521				317,144			

- Notes: 1. The *t*-statistics are heteroscedastic adjusted as described by Huber (1967) and White (1980).
2. Residents of communal establishments were excluded from the logits because they contain no observations on household variables such as tenure and car ownership.

TABLE (8)
Unemployment Logit Decompositions for Ethnic Minorities in Great Britain

	White/ Bla. Car.	White/ Bla. Afr.	White/ Bla. Oth.	White/ Indian	White/ Pak.Bang.	White/ Chinese	White/ Oth.As.	White/ Oth.Oth.	White/ Irish	White/ Tot. Min.	Indian/ Pak.Bang.
MALES											
Differences in Means $\hat{\beta}^Y - \hat{\beta}^Z$	-0.139	-0.201	-0.142	-0.033	-0.200	-0.004	-0.041	-0.087	-0.053	-0.093	-0.166
χ^2 (see note 2)	186.019	206.190	78.729	250.281	751.187	71.127	120.688	86.132	80.902	755.700	209.104
Differences in Coefficients $[P(\hat{\alpha}^Y, X^Z) - P(\hat{\alpha}^Z, X^Z)]$	-0.057	-0.118	-0.063	-0.052	-0.157	-0.009	-0.037	-0.052	-0.023	-0.062	-0.094
Differences in Characteristics $[\bar{P}(\hat{\alpha}^Y, X^Y) - \bar{P}(\hat{\alpha}^Y, X^Z)]$	-0.082	-0.083	-0.079	0.019	-0.043	0.005	-0.004	-0.035	-0.029	-0.032	-0.072
FEMALES											
Differences in Means $\hat{\beta}^Y - \hat{\beta}^Z$	-0.064	-0.179	-0.127	-0.063	-0.247	-0.007	-0.058	-0.078	-0.011	-0.072	-0.182
χ^2 (see note 2)	70.561	135.709	82.997	271.521	405.828	39.724*	88.561	67.945	57.859	457.663	128.660
Differences in Coefficients $[P(\hat{\alpha}^Y, X^Z) - P(\hat{\alpha}^Z, X^Z)]$	-0.001	-0.088	-0.046	-0.062	-0.193	-0.002	-0.042	-0.040	-0.002	-0.038	-0.120
Differences in Characteristics $[\bar{P}(\hat{\alpha}^Y, X^Y) - \bar{P}(\hat{\alpha}^Y, X^Z)]$	-0.064	-0.091	-0.081	-0.001	-0.053	-0.006	-0.016	-0.038	-0.009	-0.034	-0.062

Notes: 1 * signifies insignificance at the 5 percent level.

2 Degrees of freedom typically 35, but vary for some groups. See fn 20.

TABLE (9)

Unemployment Logit Decompositions between UK Born and Foreign Born Residents

	Whites		Non-Whites	
	Males	Females	Males	Females
Differences in Means $\hat{f}^Y - \hat{f}^Z$	0.002	-0.016	0.092	0.063
χ^2	162.318	166.095	81.364	46.190*
Differences in Coefficients $[\bar{P}(\hat{\alpha}^Y, X^Z) - \bar{P}(\hat{\alpha}^Z, X^Z)]$	-0.009	-0.015	0.000	-0.008
Differences in Characteristics $[\bar{P}(\hat{\alpha}^Y, X^Y) - \bar{P}(\hat{\alpha}^Y, X^Z)]$	0.011	-0.001	0.092	0.071

Note: * signifies insignificance at the 5 percent level.

Appendix (1)

We have used a derived variable provided by the *SARs* to describe ethnicity. Some more detail about its derivation is given below.

- 1 White: In addition Irish, Greek (inc. Greek Cypriot, Turkish (inc. Turkish Cypriot), Other European, Mixed White.
- 2 Black-Caribbean: In addition Caribbean Island, West Indian or Guyana.
- 3 Black-African: In addition Other African Countries.
- 4 Black-Other: British, other answers, mixed Black/White or other mixed (Black-Other).
- 5 Indian.
- 6 Pakistani.
- 7 Bangladeshi.
- 8 Chinese.
- 9 Other-Asian (non-mixed): East African Indians, Indo-Caribbean, Indian subcontinent, Other Asian.
- 10 Other-Other: North African, Arab or Iranian, Asian/White (mixed), other British, other answers (non-mixed), Black/White mixed and other mixed (Other-Other).
- 11 Non-White: This is the sum of groups 1 - 10.
- 12 Whites born in UK: Born in England, Scotland, Wales, Northern Ireland and rest of UK.
- 13 Whites born abroad: This includes the large immigrant group from Ireland.
- 14 Non-Whites born in UK.
- 15 Non-Whites born abroad.

Appendix (2)

With s and r fixed, the effect of an increase in the retaliation coefficient, workers' productivity, and unemployment benefit on the value D^c can be found from totally differentiating eq.(9) to give

$$dD^c = dq - dF - \frac{(r+s)}{r+s + \int_0^{D^c} \phi(D)dD} dUB - \frac{\int_0^{D^c} \phi(D)dD}{r+s + \int_0^{D^c} \phi(D)dD} dq - \frac{(q-D^c-F)\phi(D^c)}{r+s + \int_0^{D^c} \phi(D)dD} dD^c + \frac{\int_0^{D^c} \phi(D)dD}{r+s + \int_0^{D^c} \phi(D)dD} dF + \frac{\left((r+s)UB + \int_0^{D^c} (q-D-F)\phi(D)dD \right) \phi(D^c)}{\left(r+s + \int_0^{D^c} \phi(D)dD \right)^2} dD^c \quad (16)$$

By using eq.(9) it can be seen that the 5th and 7th terms in eq.(16) cancel out, allowing us to sign the comparative statics as follows

$$\begin{aligned} \frac{\partial D^c}{\partial F} &= \frac{\partial D^c}{\partial UB} = \frac{-(r+s)}{r+s+\lambda} < 0 \\ \frac{\partial D^c}{\partial q} &= \frac{(r+s)}{r+s+\lambda} > 0 \end{aligned} \quad (17)$$

The effect on equilibrium unemployment can be seen by noting that a fall in D^c lowers λ . Equilibrium unemployment is defined as a point where outflows equal inflows, which is

$$\lambda X = sE, \quad (18)$$

where X are the numbers unemployed and E are the numbers employed. Since $E = L - X$, where L is the labour force, then the equilibrium unemployment rate is

$$u = \frac{s}{s + \lambda}, \quad (19)$$

which is clearly decreasing in λ .

References

- Armstrong, D. and Murphy, A. (1994), *A Picture of the Catholic and Protestant Male Unemployed*, Employment Equality Review Research Report No 2, Central Community Relations Unit.
- Becker, G. (1971), *The Economics of Discrimination*, 2nd edn, University of Chicago Press, Chicago.
- Ballard, R. and Kalra, V.S. (1994), "The Ethnic Dimensions of the 1991 Census: A Preliminary Report", Census Dissemination Unit, University of Manchester.
- Berrington, A. (1994), "Marriage and Family Formation among White and Ethnic Minority Population in Britain", *Ethnic and Racial Studies*, Vol. 17, pp. 517-46.
- Blackaby, D. Leslie, D., Murphy, P. and O'Leary, N. (1997), "White/Ethnic Minority Earnings, Unemployment Differentials in the 1990s: Evidence for Britain", Dept of Economics, Manchester Metropolitan University, Discussion Paper.
- Blinder, A.S. (1973), "Wage Discrimination: Reduced Form and Structural Variables", *Journal of Human Resources*, Vol. 8, pp. 436-455.
- Bohning, W.R. (1991), "Integration and Immigration Pressures in Western Europe", *International Labour Review*, Vol. 130, pp. 445-58.
- Borjas, G.J. (1985), "Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants", *Journal of Labor Economics*, Vol. 3, pp. 463-89.
- Borjas, G.J. (1986), "The Self-Employment Experience of Immigrants", *Journal of Human Resources*, Vol. 21, pp. 485-506.
- Borjas, G.J. (1993), "The Impact of Immigrants on the Employment Opportunities of Natives", in OECD, *The Changing Course of International Migration*, OECD, Paris.
- Borjas, G.J. (1995), "The Economic Benefits from Immigration", *Journal of Economic Perspectives*, Vol. 9, pp. 3-22.
- Bound, J. and Freeman, R.B. (1992), "What Went Wrong? The Erosion of Relative Earnings and Employment among Young Black Men in the 1980s", *Quarterly Journal of Economics*, Vol. 107, pp. 201-32.
- Brown, C. and Gay, P. (1985), *Racial Discrimination: 17 Years After the Act*, Policy Studies Institute, London.
- Burgin, T. and Edson, P. (1967), *Spring Grove: The Education of Immigrant Children*, Oxford University Press, Oxford.

Castles, S. and Miller, M.J. (1993), *The Age of Migration: International Population Movements in the Modern World*, Macmillan, London.

Commission of the European Communities (1989), *Eurobarometer: Public Opinion in the European Community: Racism and Xenophobia*, Brussels, European Commissioners.

Dex, S. (1992), "The Costs of Discriminating against Migrant Workers: an International Review", *World Employment Programme*, Working Paper MIG WP.59, International Labour Office, Geneva.

Duncan, O.D. and Duncan, B. (1955), "A Methodological Analysis of Segregation Indices", *American Sociological Review*, Vol. 20, pp. 210-17.

Dummett, A. and Nicol, A. (1990), *Subjects, Citizens, Aliens and Others: Nationality and Immigration Law*, Weidenfeld, London.

Eurostat (1996a), *Statistics in Focus*, no 1.

Eurostat (1996b), *Statistics in Focus*, no 6.

Field F. and Haikin, P. (eds) (1971), *Black Britons*, Oxford University Press, Oxford.

Friedberg, R.M. and Hunt, J. (1995), "The Impact of Immigrants on Host Country Wages, Employment and Growth", *Journal of Economic Perspectives*, Vol. 9, pp. 23-44.

Fryer, P. (1984), *Staying Power: The History of Black People in Britain*, Pluto Press, London.

Gomulka, J. and Stern, N. (1990), "The Employment of Women in the United Kingdom 1970-1983", *Economica*, Vol. 57, pp. 171-99.

Green, A. (1995), "A Comparison of Alternative Measures of Unemployment", *Environment and Planning A*, Vol. 27, pp. 535-56.

Holdsworth, C. (1995), "Minimal Household Units", *SARs Newsletter*, No 5, pp. 3-10.

Holmes C. (1991), *A Tolerant Country? Immigrants, Refugees and Minorities in Britain*, Faber and Faber, London.

Huber, P.J. (1967), "The Behavior of Maximum Likelihood Estimates Under Nonstandard Conditions", *Proceedings for the 5th Berkeley Symposium on Mathematical Statistics and Probability*, Vol. 1, pp. 221-33.

Jones, F.L. (1983), "On Decomposing the Wage Gap: a Critical Comment on Blinder's Method", *Journal of Human resources*, Vol. 18, pp. 126-30.

Lazear, E. (1995), "Culture and Language", *NBER Discussion Paper* 5249.

Leslie, D. and Field, K. (1992), "A Dynamic Picture of UK Male and Female Unemployment 1980-84", *British Review of Economic Issues*, Vol. 13, pp. 77-103.

Leslie, D. and Drinkwater, S. (1996), "Staying on in Full-Time Education: Reasons for Higher Participation Rates Among Ethnic Minorities", Dept of Economics, Manchester Metropolitan University, Discussion Paper.

Leslie, D., Drinkwater, S. and O'Leary, N. (1996), "Little White Lies: Ethnic Variations in Male and Female Earnings", Dept of Economics, Manchester Metropolitan University, Discussion Paper.

Marie, C. (1995), *The EC Member States and Immigration in 1993*, Luxembourg, European Commission.

McCormick, B. (1983), "Housing and Unemployment in Great Britain", in C. Greenhalgh, P. Layard and A. Oswald (eds), *The Causes of Unemployment*, Oxford University Press, Oxford.

Modood, T., Virdee, S. and Metcalf, H. (1996), *Asian Self-Employment*, Policy Studies Institute, London.

Nickell, S. (1980), "A Picture of Male Unemployment in Britain", *Economic Journal*, Vol. 90, pp. 776-94.

Oaxaca R.L. (1973), "Male-Female Wage Differentials in Urban Labor Markets", *International Economic Review*, Vol. 14 pp. 529-36.

Oaxaca, R.L. and Ransom, M.R. (1994), "On Discrimination and the Decomposition of Wage Differentials", *Journal of Econometrics*, Vol. 61, pp. 5-21.

OECD (SOPEMI) (1995), *Continuous Reporting System on Migration*, Paris.

Owen, D. and Green, A. (1992), "Labour Market Experience and Occupational Change among Ethnic Groups in Britain", *New Community*, Vol. 19, pp. 7-29.

Parker-Jenkins, M. (1990), "Muslim Matters: the Educational Needs of the Muslim Child", *New Community*, Vol. 17, pp. 569-82.

Peach, C. (1989), "Estimating the Growth of the Bangladeshi Population of Great Britain", *New Community*, Vol. 16, pp. 481-91.

Peach, C. (1990), "The Muslim Population in Great Britain", *Ethnic and Racial Studies*, Vol. 13, pp. 414-19.

Peach, C. and Glebe, G. (1995), "Muslim minorities in Western Europe", *Ethnic and Racial Studies*, Vol. 18, pp. 26-45.

Pissarides, C.A. (1990), *Equilibrium Unemployment Theory*, Basil Blackwell, Oxford.

Rafiq, M. (1992), "Ethnicity and Enterprise: A Comparison of Muslim and Non-Muslim owned Businesses in Britain", *New Community*, Vol. 19, pp. 43-60

Reed, T. (1992), "Dialect Interference and the Reading Attainments of South Asians", *Research Papers in Education*, TH15305, John Rylands Library, Manchester University.

Rex, J. (1991), *Ethnic Identity and Ethnic Mobilisation in Britain*, ESRC, Centre for Research in Ethnic Relations, Warwick.

Robinson, V. (1986), *Transients, Settlers and Refugees: Asians in Britain*, Clarendon Press, Oxford.

Simpson, S. and Dorling, D. (1994), "Those Missing Millions: Implications for Social Statistics of Non-Response from the 1991 Census", *Social Policy*, Vol. 23, pp. 543-67.

Sly, F. (1996), "Ethnic Minority Participation in the Labour Market: Trends from the Labour Force Survey", *Labour Market Trends*, June, pp. 259-70.

Solomos, J. (1993), *Race and Racism in Britain*, 2nd Edn, MacMillan, London.

Taylor, P. (1992), "Minority Ethnic Groups and Gender in Access to Higher Education", *New Community*, Vol. 19, pp. 425-40.

Thurow, L.C. (1969), *Poverty and Discrimination*, Brookings Institute, Washington.

Tye, R. (1995), "The Missing Millions!", *Manchester Information Datasets and Associated Services Newsletter*, number 2 (March), pp. 2-4.

Werbner, P. (1990), "Shattered Bridges: The Dialectics of Progress and Alienation among British Muslims", *New Community*, Vol. 17, pp. 331-46.

White, H. (1980), "A Heteroscedasticity-Consistent Co-variance Matrix Estimator and a Direct Test for Heteroscedasticity", *Econometrica*, Vol. 48, pp. 817-38.

Whitmarsh, A. and Harris, T. (1996), *Social Focus on Ethnic Minorities*, HMSO, London.

Wood, A. (1994), *North-South Trade, Employment and Inequality: Changing Fortunes in a Skill-Driven World*, Clarendon Press, Oxford.

Zimmermann, K.F. (1995), "Tackling the European Migration Problem", *Journal of Economic Perspectives*, Vol. 9, pp. 45-62.



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